

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK
CENTRAL ISLIP COURTHOUSE**

**MICHAEL NACHMAN,
individually and on behalf of a class of
similarly situated persons,**

Plaintiff,

v.

**TESLA, INC., TESLA LEASE TRUST; and
TESLA FINANCE LLC
Defendants.**

Case No.

CLASS ACTION COMPLAINT

JURY TRIAL DEMANDED

Plaintiff Michael Nachman (“Plaintiff”) brings suit on behalf of himself and all persons similarly situated who purchased a Tesla vehicle with advanced driver assistance systems (“ADAS”), a.k.a. “Autopilot”, “Enhanced Autopilot”, or “Full Self-Driving Capability” (“FSD”) (the “Vehicles”). The Vehicles are manufactured, marketed, sold and/or leased by Defendants Tesla, Inc., Tesla Lease Trust, and Tesla Finance LLC (collectively “Tesla” or “Defendants”). The Vehicles are sold under the brand name “Tesla.” Tesla’s branding and labeling of the Vehicles conveys a message to consumers that is deceptive and misleading and therefore unlawful, namely, that the Vehicles have are self-driving without the need for human supervision and interaction. Unfortunately for consumers, the Vehicles require constant and intensive human supervision and interaction, meaning they are not in fact self-driving. Plaintiff and all class members were harmed by paying more to purchase Vehicles with ADAS than Defendant’s Tesla vehicles without ADAS.

INTRODUCTION

1. Plaintiff brings this consumer class action lawsuit to hold Tesla and its representatives, including CEO Elon Musk, accountable for years of making misleading and deceptive statements regarding the company’s advanced driver assistance systems (“ADAS”) technology. For years, Tesla has deceptively and misleadingly marketed its ADAS technology as autonomous driving technology under various names, including “Autopilot,” “Enhanced Autopilot,” and “Full Self-Driving Capability” (“FSD”), the latter two of which Tesla charges consumers thousands of additional dollars to add to their new vehicle. Tesla has deceived and misled consumers regarding the current abilities of its ADAS technology and by representing that it was perpetually on the cusp of perfecting that technology and finally fulfilling its promise of producing a fully self-driving car. Although these promises have proven false time and time again, Tesla and Musk have continued making them to generate media attention, to deceive consumers

into believing it has unrivaled cutting-edge technology, and to establish itself as a leading player in the fast-growing electric vehicle market.

2. Despite portraying itself as a leader in autonomous vehicle technology, Tesla's ADAS features have been surpassed by numerous automaker competitors that have developed autonomous driving technology far more advanced than Tesla's, and now available in some consumer markets. At the same time, former Tesla employees and investigations have revealed damning information that now makes clear that, contrary to Tesla's repeated promises that it would have a fully self-driving car within months or a year, Tesla has never been remotely close to achieving that goal.

3. For example, to accompany the 2016 launch of Tesla's "Enhanced Autopilot" and "Full Self-Driving" versions of its ADAS technology, much of the Tesla Autopilot engineering team dropped everything to produce a video that purports to show a Tesla car driving itself. The video begins with the following message: "The person in the driver's seat is only there for legal reasons. He is not driving anything. The car is driving itself." In reality, Tesla employees made the video would later reveal that the car in the video had significant assistance from commercial mapping software not available to Tesla customers, and that the car still performed poorly and even ran into a fence during filming. With the assistance of a large team of Tesla engineers, the car had to run the same route over and over again before Tesla got acceptable video that appeared to show a car capable of driving itself. Even though the video was debunked as deceptive and misleading years ago, Tesla continues to prominently feature it on its website.

4. Six years later in 2022, Tesla has yet to produce anything even remotely approaching a fully self-driving car. Instead, Tesla pushes out "updates" to its experimental FSD Beta software to a small minority of Tesla owners, who effectively act as untrained test engineers

testing experimental software on public roadways. Drivers have consistently found that Tesla's FSD Beta software has myriad problems, such as cars failing to make routine turns, running red lights, and steering directly into large objects and oncoming traffic.¹ There have also been numerous collisions involving Tesla's purportedly cutting-edge ADAS software, including Tesla vehicles plowing at high speeds into large stationary objects such as emergency vehicles and an overturned box truck. Dozens of people have suffered fatal and other serious injuries as a result of these ADAS-related collisions, triggering a host of investigations by state and federal regulators.²

5. As information has trickled out of the secretive company via former employees and investigations, it has become increasingly clear that Tesla knew for years its statements regarding its ADAS technology were deceptive and misleading, but the company made them anyway. Tesla did so to generate excitement about the company's vehicles and thereby improve its financial condition by, among other things, attracting investment, increasing sales, avoiding bankruptcy, driving up Tesla's stock price, and helping to establish Tesla as a dominant player in the electric vehicle market.

6. For example, in 2016, Musk tweeted a bold prediction—that a Tesla vehicle would complete a fully self-driving trip *across the United States* by “next year.” Later in 2016, Tesla announced on its official blog that “All Tesla Cars Being Produced Now Have Full Self-Driving Hardware.” The blog post included the misleading October 2016 video of a Tesla car purportedly

¹ See, e.g., The Dawn Project, “Unsafe at Any Speed,” https://dawnproject.com/wp-content/uploads/2022/06/Tesla-ADAS-unsafe-at-any-speed-NA.mp4?_1 (collecting video clips showing such problems).

² See Brad Templeton, “Tesla In Taiwan Crashes Directly Into Overturned Truck, Ignores Pedestrian, With Autopilot On,” *Forbes* (June 2, 2020), *available at* <https://www.forbes.com/sites/bradtempleton/2020/06/02/tesla-in-taiwan-crashes-directly-into-overturned-truck-ignores-pedestrian-with-autopilot-on/> (includes surveillance video showing the collision).

driving itself without incident, and suggested that Tesla was on the cusp of bringing to market cars that would be fully “self-driving” and have “full autonomy.”³ When Tesla and Musk made these statements, they knew there was no reasonable chance of Tesla being able to meet these forecasts.⁴

7. From approximately 2017 to 2019, the page on Tesla’s website explaining its “Full Self-Driving Capability” technology similarly promised that consumers who purchased or leased cars with the FSD version of its ADAS technology would receive cars capable of “full self-driving in almost all circumstances,” including being able to “conduct short and long distance trips with no action required by the person in the driver’s seat” and with a “probability of safety at least twice as good as the average human driver.” On the same webpage, Tesla went on to state:

All you will need to do is get in and tell your car where to go. If you don’t say anything, the car will look at your calendar and take you there as the assumed destination or just home if nothing is on the calendar. Your Tesla will figure out the optimal route, navigate urban streets (even without lane markings), manage complex intersections with traffic lights, stop signs and roundabouts, and handle densely pack freeways with cars moving at high speed.

8. Indeed, in every year since 2016, Tesla and Musk have repeatedly made deceptive and misleading statements to consumers indicating that a fully self-driving, fully autonomous Tesla vehicle was just around the corner, often expressly stating that would occur by the end of that calendar year or within the “next year.”⁵ For example, in May 2019, after years of failing to deliver on prior promises, Musk again promised consumers that a fully self-driving Tesla car

³ See The Tesla Team, “All Tesla Cars Being Produced Now Have Full Self-Driving Hardware,” [https:// www.tesla.com/blog/all-tesla-cars-being-produced-now-have-full-selfdriving-hardware](https://www.tesla.com/blog/all-tesla-cars-being-produced-now-have-full-selfdriving-hardware) (Oct. 19, 2016).

⁴ See Maya Kosoff, “Elon Musk: Self-Driving Car Doubters Are Literally ‘Killing People,’” *Vanity Fair* (Oct. 20, 2016), available at <https://www.vanityfair.com/news/2016/10/elon-musk-self-driving-car-doubters-are-literally-killing-people>.

⁵ See, e.g., The Dawn Project, “Elon Musk’s broken promises,” https://dawnproject.com/wp-content/uploads/2022/06/The-Dawn-Project-Musk-promises-1min-NA.mp4?_2 (collecting video clips of Musk making such promises from 2014 to 2021).

would be available by the end of that year, tweeting that “everyone with Tesla Full Self-Driving will be able” to take a fully automated trip in their Tesla from Los Angeles to New York.⁶ While tens of thousands of U.S. and California consumers have purchased or leased new Tesla vehicles with ADAS technology in 2019 and every year since, Tesla has yet to deliver on its repeated promises of a fully self-driving car at *any* distance—much less a fully automated three-thousand-mile journey across the country.

9. The reality of Tesla’s ADAS technology is far different from what Tesla and Musk have spent years telling consumers. Instead of providing its customers the “Full Self-Driving Capability” they paid for, Tesla uses them as untrained test engineers to test drive its experimental FSD Beta software on public roadways, which generates data that Tesla can use to improve its software. Along the way, scores of Tesla owners who believed Tesla’s and Musk’s deceptive and misleading statements about the capabilities of Tesla’s ADAS technology have been killed and seriously injured when that technology failed, often in the face of routine roadway scenarios.

10. Even Tesla itself has admitted that “Full Self-Driving” is an inaccurate name. In response to California regulators’ concerns about Musk’s public announcements in late 2020 indicating that a new FSD Beta update would make Tesla vehicles autonomous, Tesla attorneys sent private emails to those regulators (later disclosed in response to Public Records Act requests) walking those statements back and making clear they were false. Tesla attorneys told the regulators that Tesla vehicles equipped with so-called “Full Self-Driving Capability” were not fully self-driving at all, but still required the driver to steer, brake, and accelerate as needed. In the meantime, Tesla and Musk continued their deceptive marketing to consumers.

⁶ Elon Musk, <https://twitter.com/elonmusk/status/1126611407984779264> (May 9, 2019, 3:14 PM).

11. Tesla had represented its ADAS technology would make the vehicle fully self-driving in some situations and would soon make it fully self-driving in all situations. It is now four years later, and Tesla has never provided Plaintiff anything remotely approaching the fully self-driving car it promised to provide.

12. Plaintiff brings this class action lawsuit on behalf of himself and fellow consumers who purchased or leased a new Tesla vehicle with Tesla's ADAS technology but never received the self-driving car that Tesla promised them. Plaintiff brings claims against Tesla for violations of the federal Magnuson-Moss Warranty Act and California's False Advertising Law, Consumer Legal Remedies Act, and Unfair Competition Law, as well as common law claims for fraud and deceit, negligent misrepresentation, negligence, and unjust enrichment. Plaintiff seeks various relief on behalf of himself and the proposed Class, including injunctive relief prohibiting Tesla from continuing its deceptive and misleading marketing of its ADAS technology, restitution of the money Plaintiff and Class members paid for technology that Tesla promised but never delivered, and all available damages including punitive damages to punish Tesla for years of using deceptive and misleading marketing to eventually establish itself as a dominant player in the electric vehicle market.

PARTIES

Plaintiff

13. Plaintiff Nachman is an individual who resides in the Long Beach, New York. On or about December 31, 2016, Plaintiff purchased a Tesla Model S from the Tesla dealership in Manhasset, New York. During the purchase process, Plaintiff and the sales representative sat at a desk in the dealership and selected the features for Plaintiff's Model S on the Tesla website. During

the process, Plaintiff was shown ADAS and paid an additional approximately \$8,000 for that system.

Defendants

14. Defendant Tesla, Inc., is a Delaware corporation that had its principal place of business in Austin, Texas. Defendant designs, develops, manufactures, tests, markets, distributes, sells, and leases electric vehicles under the brand name “Tesla.” Defendant also offers services related to those vehicles, including designing, developing, and periodically sending over-the-air updates for the ADAS software in Tesla vehicles.

15. Tesla, Inc. has a vertically integrated business model. (a) Tesla designs, develops, manufacturers, and tests its electric vehicles and the ADAS software on those vehicles. This includes all versions of Tesla’s ADAS technology (e.g., Autopilot, Enhanced Autopilot, FSD), which were and are designed, developed, manufactured, and tested by Tesla in the State of California at its Palo Alto offices, Fremont factory, and other California offices and facilities. On information and belief, all or a substantial majority of the Class Vehicles (as defined herein) were manufactured and tested in California. (b) Tesla markets its vehicles on its website, in marketing materials, in its brick-and-mortar galleries and showrooms, and through the tweets, media interviews, new conferences, earnings calls, conferences, forums, and other public events and statements by its representatives and agents, including Elon Musk, all of which are intended and designed to generate media coverage, and have been historically successful at doing so. (c) Tesla sells and leases its electric vehicles directly to consumers, including through its website and retail stores, which Tesla owns and operates.

16. Defendant Tesla Lease Trust is a Delaware statutory trust, and its initial beneficiary is Tesla Finance LLC. Tesla Lease Trust is the title holder to the Tesla vehicles that are leased under a leasing program managed by Tesla Finance LLC.

17. Defendant Tesla Finance LLC is a wholly owned subsidiary of Tesla, Inc., and is the beneficial owner of the leasing assets held in Trust by Tesla Lease Trust and, as an agent of the Tesla Lease Trust, originates, services, administers, and collects leases for Tesla Lease Trust. Tesla Finance LLC is incorporated in Delaware and has its principal place of business in California.

JURISDICTION AND VENUE

18. The Court has jurisdiction over this action pursuant to 28 U.S.C. §1332(d)(2)(A), the Class Action Fairness Act (“CAFA”), as the matter in controversy exceeds the sum of \$5,000,000 (five million dollars) exclusive of interest and costs, and at least one member of the putative class is a citizen of a state different from Defendant. Specifically, Plaintiff is a resident of New York while at least one Defendant Tesla, Inc. resident of Delaware and Texas. None of the exceptions of 28 U.S.C. §1332(d) are applicable.

19. This Court has personal jurisdiction over Defendant because it conducts and transacts business within the District, and contracts to supply and supplies food Vehicles within the District by, among other things, marketing, advertising, and selling the Vehicles. Further, Plaintiff’s claims arise out of Defendant’s conduct within the District.

20. Venue is proper because Plaintiff and many class members reside in this District, Tesla does business in this District and in New York, and a substantial part of the events giving rise to the claims occurred in this District.

STATEMENT OF FACTS

A. The Technology of Autonomous Vehicles

21. SAE International, formerly the Society of Automotive Engineers, is a U.S.-based professional association and standards development organization founded in the early 20th century. In 2014, SAE International took a leading role in the development of autonomous vehicle technology standards by publishing the initial version of *SAE J3016 Recommended Practice: Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles*, commonly referred to as the SAE Levels of Driving Automation (“SAE Levels”). Following this, SAE International published revised versions of the SAE Levels in 2016, 2018, and 2021.⁷

22. The SAE Levels provide a taxonomy of vehicle driving automation systems with detailed definitions for six levels for driving automation, ranging from no driving automation (SAE Level 0) to full driving automation (SAE Level 5). The SAE Levels can be summarized as follows:

Level 0: No Driving Automation. The human driver performs all driving tasks (steering, acceleration, braking, etc.), although vehicles may have safety features like automatic emergency braking and forward collision warning. **Level 1: Driver Assistance.** The vehicle has features that provide a small degree of automation over the vehicle’s acceleration, braking, or steering (e.g., adaptive cruise control, lane-keeping assistance). **Level 2: Partial Driving Automation.** The vehicle can perform multiple driving tasks (e.g., acceleration, steering) but remains under the human driver’s constant supervision, responsibility, and control. **Level 3: Conditional Driving Automation.** The vehicle can take full control of certain driving tasks such that the human driver

⁷ See SAE International, *Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles* (revised Apr. 30, 2021), https://www.sae.org/standards/content/j3016_202104.

need not remain constantly alert but must be ready to intervene upon request from the vehicle.

Level 4: High Driving Automation. The vehicle can perform all driving tasks in specific locations or environments, but human override is still an option. **Level 5: Full Driving Automation.** The vehicle can perform all driving tasks under all conditions, with zero human attention or interaction required. The SAE Levels are summarized in the following graphic from the Wall Street Journal.

The Six Stages of Automation

Tesla and other companies are working on automated-driving systems that would eventually allow cars to drive themselves.

Level 0: No Automation



A human controls all the critical driving functions.

Level 1: Driver Assistance



The vehicle can perform some driving functions, often with a single feature such as cruise control. The driver maintains control of the vehicle.

Level 2: Partial Automation



The car can perform one or more driving tasks at the same time, including steering and accelerating, but still requires the driver remain alert and in control.

Level 3: Conditional Automation

Under Development



The car drives itself under certain conditions but requires the human to intervene upon request with sufficient time to respond. The driver isn't expected to constantly remain alert.

Level 4: High Automation

Under Development



The car performs all critical driving tasks and monitors roadway conditions the entire trip, and doesn't require the human to intervene. Self-driving is limited to certain driving locations and environments.

Level 5: Full Automation

Under Development



The Holy Grail. The car drives itself from departure to destination. The human is out of the loop. The car is as good or better than a human and steering wheels and pedals are potentially unnecessary.

Sources: SAE International; National Highway Traffic Safety Administration

23. The SAE Levels are a widely accepted international standard and have been adopted by regulatory agencies such as the National Transportation Safety Board (“NTSB”), National Highway Traffic Safety Administration (“NHTSA”), and U.S. Department of Transportation.

24. SAE International refers to SAE Level 1 and 2 technologies as systems or features that provide “driver support” (see below in blue), whereas it refers to SAE Level 3, 4, and 5 technologies as systems or features that provide “automated driving” (see below in green). When SAE International published the current version of the SAE Levels in 2021, it summarized the revised SAE Levels in the following graphic, which emphasizes that for SAE Level 2 driver-support features, “You are driving whenever these driver support features are engaged” and “You must constantly supervise these support features.”⁸

SAE J3016™ LEVELS OF DRIVING AUTOMATION™
Learn more here: [sae.org/standards/content/j3016_202104](https://www.sae.org/standards/content/j3016_202104)

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	SAE LEVEL 0™	SAE LEVEL 1™	SAE LEVEL 2™	SAE LEVEL 3™	SAE LEVEL 4™	SAE LEVEL 5™
What does the human in the driver's seat have to do?	You <u>are</u> driving whenever these driver support features are engaged – even if your feet are off the pedals and you are not steering			You <u>are not</u> driving when these automated driving features are engaged – even if you are seated in “the driver's seat”		
	You must constantly supervise these support features; you must steer, brake or accelerate as needed to maintain safety			When the feature requests, you must drive.	These automated driving features will not require you to take over driving	
	These are driver support features			These are automated driving features		
What do these features do?	These features are limited to providing warnings and momentary assistance	These features provide steering OR brake/acceleration support to the driver	These features provide steering AND brake/acceleration support to the driver	These features can drive the vehicle under limited conditions and will not operate unless all required conditions are met	This feature can drive the vehicle under all conditions	
Example Features	<ul style="list-style-type: none"> • automatic emergency braking • blind spot warning • lane departure warning 	<ul style="list-style-type: none"> • lane centering OR adaptive cruise control 	<ul style="list-style-type: none"> • lane centering AND adaptive cruise control at the same time 	<ul style="list-style-type: none"> • traffic jam chauffeur 	<ul style="list-style-type: none"> • local driverless taxi • pedals/steering wheel may or may not be installed 	<ul style="list-style-type: none"> • Same as level 4, but feature can drive everywhere in all conditions

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⁸ SAE International, “SAE Levels of Driving Automation Refined for Clarity and International Audience”(May 3, 2021), <https://www.sae.org/blog/sae-j3016-update>.

25. In May 2022, the NHTSA published the following graphic summarizing the SAE Levels, which drives home many of the same points as the 2021 SAE International graphic—i.e., that at SAE Levels 0 to 2, the driver is fully responsible for the driving the car (“You drive, you monitor”), whereas autonomous technology does not begin until SAE Level 3 (“System drives, you must be able to take over upon request”), and fully self-driving technology does not occur until SAE Levels 4 and 5 (“system drives, you ride”).⁹



⁹ NHTSA, “Levels of Automation” (May 2022), *available at* <https://www.nhtsa.gov/sites/nhtsa.gov/files/2022-05/Level-of-Automation-052522-tag.pdf>.

26. While Tesla and Musk have routinely promised Tesla's SAE Level 2 ADAS technology (including Autopilot and FSD) would rapidly advance to SAE Level 5 abilities within a year or other short period of time, Tesla's technology has never advanced beyond SAE Level 2.

27. While Tesla has spent year after year stuck at SAE Level 2, other vehicle manufacturers have successfully designed and developed SAE Level 3 features, including Audi in 2017, Honda in 2021, and Mercedes-Benz in 2021. Honda and Mercedes-Benz both currently offer automobiles with Level 3 features for sale or lease to the public in their respective home markets of Japan and Europe. Meanwhile, Waymo has been operating limited SAE Level 4 taxi service on public roadways in some areas of Phoenix (since 2018) and San Francisco (since 2021).

28. Whereas Tesla's Level 2 technology relies heavily on cameras (with limited assistance from a single forward-facing radar unit), the successful design and development of safer and more advanced Level 3 and 4 systems to date has universally relied on a more robust and expensive combination of cameras, multiple radar units, and one or more lidar units. The general consensus among autonomous vehicle experts is that truly autonomous, self-driving cars cannot be achieved without some reliance on lidar technology, which Tesla has always refused to use because of considerations related to expense and aesthetics.

B. Tesla's First-Generation "Autopilot" Technology

29. In 2003, Tesla was founded by Martin Eberhard and Marc Tarpenning. The following year, PayPal co-founder Elon Musk made a substantial investment in Tesla and became chairman of the company's board. Tesla will later refer to Musk as a "co-founder" of the company.

30. In 2008, Musk became Tesla's Chief Executive Officer ("CEO"), and Tesla released the Roadster, which was the first mainstream electric vehicle powered by lithium-ion batteries.

31. In 2012, Tesla released its Model S sedan.

32. In 2014, Tesla began equipping its Model S sedan with hardware that (although the necessary software was not yet active) was intended to allow vehicles to automate some steering, braking, and acceleration functions. Consistent with widely used industry terminology, Tesla originally called this feature “advanced driver assistance” before Tesla executives led by Musk decided to change the name to “Autopilot.” Tesla engineers expressed concerns that the name was misleading and suggested less misleading options such as “Copilot,” which Tesla rejected.¹⁰

33. Tesla’s “Autopilot” technology is based on two driver assistance technologies developed by other automakers in the 1990s. The first is adaptive cruise control (“ACC”) technology, versions of which were debuted by Toyota and Mercedes-Benz in the 1990s. ACC uses radar to warn the driver if a vehicle ahead is slowing down and automatically brakes if the driver fails to take sufficient responsive action. Contemporary ACC technology also has the ability to follow a forward vehicle at a pre-selected time gap, up to a driver-selected speed. ACC is an SAE Level 1 feature.¹¹

34. The second driver-assistance technology on which Autopilot is based is lane keeping assistance (“LKA”). LKA evolved from lane departure warning (“LDW”) technology, which was developed in the 1990s and first appeared on commercial vehicles in Europe in 2000. LDW warns the driver if the vehicle crosses a painted line on the roadway, whereas LKA controls steering inputs to keep a vehicle in its lane. LKA is an SAE Level 1 feature.

¹⁰ Cade Metz & Neal E. Boudette, “Inside Tesla as Elon Musk Pushed an Unflinching Vision for Self-Driving Cars,” *The New York Times* (Dec. 6, 2021), *available at* <https://www.nytimes.com/2021/12/06/technology/tesla-autopilot-elon-musk.html>; Tesla, “Tesla Self-Driving Demonstration” (Nov. 18, 2016), <https://www.tesla.com/videos/autopilot-self-driving-hardware-neighborhood-long>.

¹¹ See NHTSA, “Automated Vehicles for Safety: The Road to Full Automation,” <https://www.nhtsa.gov/technology-innovation/automated-vehicles-safety#the-topic-road-to-full-automation>.

35. In October 2015, Tesla released its version 7.0 software, which enabled Autopilot on Model S vehicles. Robert Rose, the head of the Autopilot project, left Tesla shortly before the release. Evan Nakano, a Tesla Autopilot engineer who had worked on safety features, objected that Autopilot was not ready for release. When Tesla ignored his concerns, Nakano resigned in protest and wrote a resignation letter, circulated widely among Tesla employees, that called Autopilot's development based on "reckless decision making that has potentially put customer lives at risk."¹²

36. By December 2015, Musk was publicly stating that Tesla vehicles would drive themselves within about two years. He told *Fortune* magazine, "I think we have all the pieces, and it's just about refining those pieces, putting them in place, and making sure they work across a huge number of environments—and then we're done. It's a much easier problem than people think it is."¹³

37. In January 2016, Musk announced on a conference call with reporters that Autopilot was "probably better" than a human driver. He stated that Tesla vehicles would be able to drive significantly better than humans within two to three years, and that within approximately two years drivers would be able to use Tesla's "Summon" feature, which allows drivers to remotely instruct their vehicle to drive to a specified location, to summon a vehicle from the other side of the country.¹⁴

¹² Ianthe Jeanne Dugan & Mike Spector, "Tesla's Push to Build a Self-Driving Car Sparked Dissent Among Its Engineers," *The Wall Street Journal* (Aug. 24, 2017), available at <https://www.wsj.com/articles/teslas-push-to-build-a-self-driving-car-sparks-dissent-among-its-engineers-1503593742>.

¹³ Kristen Korosec, "Elon Musk Says Tesla Vehicles Will Drive Themselves in Two Years," *Fortune* (Dec. 21, 2015), available at <https://fortune.com/2015/12/21/elon-musk-interview/>.

¹⁴ Elon Musk, <https://twitter.com/elonmusk/status/686279251293777920> (Jan. 10, 2016, 12:11 PM).



38. Ten days later, on January 20, 2016, 23-year-old Gao Yaning, who had a history of relying on Autopilot to drive, was killed in China on the way home from a family wedding when his Tesla Model S crashed at full speed on a highway into the back of a large street sweeper. The facts of accident strongly indicate that Autopilot was engaged at the time of the crash.¹⁵

39. In February 2016, Consumer Reports tested Tesla’s new Summon feature, which Tesla claimed makes the car able to drive itself for short distances without anyone in the car, such as to enter or leave a parking space or garage. Although Consumer Reports had previously given Tesla vehicles rave reviews (scoring Tesla’s Model S a 99 out of 100 and calling it “the best car we have every tested” in 2013, and scoring a another version of the Model S even higher in 2015), this time Consumer Reports’ testing revealed that the Summon feature failed to detect “several large objects that a homeowner might leave in a driveway or on the floor of a garage—such as a duffel bag and bicycle—and the car failed to stop before hitting them.” Consumer Reports’ testers also encountered other problems related to difficulties they had remotely stopping the car, which resulted in damage to one of the car’s wheels and raised significant safety concerns.¹⁶

¹⁵ Neal Boudette, “Autopilot cited in Death of Chinese Tesla Driver,” *The New York Times* (Sept. 14, 2016), available at <https://www.nytimes.com/2016/09/15/business/fatal-tesla-crash-in-china-involved-autopilot-government-tv-says.html>.

¹⁶ Jake Fisher, “Tesla to Fix Self-Parking Feature After Consumer Reports Raises Safety

40. On May 7, 2016, Tesla driver Joshua Brown was killed in Florida when the Autopilot on his Tesla Model S failed to recognize a tractor-trailer crossing in front his car, which resulted in Brown's car striking and passing under the trailer at 74 mph.¹⁷ The top third of Brown's car was sheared off. Brown was a Tesla enthusiast who had previously made videos of himself using Autopilot, one of which was retweeted by Elon Musk just a few weeks earlier.¹⁸ Tesla later publicly stated that the Autopilot software on Brown's car failed to detect the white tractor-trailer because it could not distinguish it from the bright sky. Several months later, in September 2016, Tesla would announce it was confident it had fixed the issue in version 8 of its Autopilot software by increasing the system's reliance on radar so that it "would see a large metal object across the road."¹⁹



Concern," *Consumer Reports* (Feb. 10, 2016), available at <https://www.consumerreports.org/car-safety/tesla-fixes-self-parking-feature-after-consumer-reports-raises-safety-concern/>.

¹⁷ NTSB, Investigation No. HWY16FH018, Dkt. No. 2, "Crash Summary Report" (June 19, 2017), available at <https://data.nts.gov/Docket/Document/docBLOB?ID=40453253&FileExtension=.PDF&File-Name=Crash%20Summary-Master.PDF>.

¹⁸ Rachel Abrams & Annalyn Kurtz, "Joshua Brown, Who Died in Self-Driving Accident, Tested Limits of His Tesla," *The New York Times* (July 1, 2016), available at <https://www.nytimes.com/2016/07/02/business/joshua-brown-technology-enthusiast-tested-the-limits-of-his-tesla.html>.

¹⁹ Neal Boudette, "Elon Musk Says Pending Tesla Updates Could Have Prevented Fatal Crash," *The New York Times* (Sept. 11, 2016), available at <https://www.nytimes.com/2016/09/12/business/elon-musk-says-pending-tesla-updates-could-have-prevented-fatal-crash.html>.

41. Less than a month later, on June 2, 2016, Musk confidently announced that “autonomous driving” was “basically a solved problem,” and that Tesla’s Autopilot software was already safer than a human driver on highways. “I think we’re basically less than two years away from complete autonomy—*complete*,” Musk said.²⁰

42. On July 14, 2016, Consumer Reports took the unusual step of publicly calling on Tesla to take certain actions. It urged Tesla to “change the name of the Autopilot feature because it promotes a potentially dangerous assumption that the Model S is capable of driving on its own.” Instead of using the “misleading” name Autopilot, Consumer Reports urged Tesla to “name automated features with descriptive, not exaggerated, titles.”²¹

43. On July 20, 2016, Tesla’s official blog published a post by Musk, in which he misleadingly suggests that lack of regulatory approval was a major challenge Tesla was facing in bringing to market fully self-driving vehicles: “When true self-driving is approved by regulators, it will mean that you will be able to summon your Tesla from pretty much anywhere. Once it picks you up, you will be able to sleep, read or do anything else enroute to your destination. You will also be able to add your car to the Tesla shared fleet just by tapping a button on the Tesla phone app and have it generate income for you while you’re at work or on vacation.”²²

44. In August 2016, after a Tesla driver with Autopilot engaged crashed into a parked vehicle on a Beijing highway and later stated publicly that the Tesla had misrepresented

²⁰ Recode, “Elon Musk | Full Interview | Code Conference 2016,” <https://www.youtube.com/watch?v=wsixsRI-Sz4&t=4675s> at 1:17:55–1:21:20 (June 2, 2016).

²¹ Consumer Reports, “Consumer Reports Calls on Tesla to Disable and Update Auto Steering Function, Remove ‘Autopilot’ Name” (July 14, 2016), *available at* <https://www.consumerreports.org/media-room/press-releases/2016/07/consumer-reports-calls-on-tesla-to-disable-and-update-auto-steering-function-remove-autopilot-name/>.

²² Elon Musk, “Master Plan, Part Deux,” <https://www.tesla.com/blog/master-plan-part-deux> (July 20, 2016).

Autopilot's capabilities and misled buyers, Tesla removed from its China website a term that translates as "self-driving" and replaced it with a term that translates as "self-assisted driving."²³ Tesla did not make any similar changes to its U.S. website.

45. On or about October 16, 2016, German regulators sent Tesla a formal letter reading, "In order to prevent misunderstanding and incorrect customers' expectations, we demand that the misleading term Autopilot is no longer used in advertising the system." The German government also reminded Tesla vehicle owners that Tesla's ADAS technology required, and could only be safely operated with, constant driver attention and supervision.²⁴

C. Tesla's Release of "Enhanced Autopilot" and "Full-Self-Driving Capability"

46. On October 19, 2016, Tesla released its Autopilot 2.0 software and announced that all new Tesla cars would come with a new suite of hardware (called Autopilot Hardware 2) comprising eight cameras, twelve ultrasonic sensors, and a forward-facing radar unit, which Tesla claimed would allow the cars to soon become capable of SAE Level 5 autonomy.²⁵ To access the hardware, owners would have to pay \$5,000 for an "Enhanced Autopilot" feature and another \$3,000 for the right to activate Tesla's promised "Full Self-Driving Capability." The Enhanced Autopilot package provided drivers most or all of the features in the FSD package, except for the right to unlimited access to Tesla's soon-to-arrive full self-driving technology, and potential early access to FSD Beta updates Tesla might release on its way perfecting that technology.

²³ Jake Spring & Alexandria Sage, "Tesla removes 'self-driving' from China website after Beijing crash," *Reuters* (Aug. 15, 2016), <https://www.reuters.com/article/us-tesla-china-crash-idUSKCN10Q0L4>

²⁴ Reuters Staff, "Germany says Tesla should not use 'Autopilot' in advertising," *Reuters* (Oct 16, 2016), *available at* <https://www.reuters.com/article/idUSKBN12G0KS>.

²⁵ See Alex Nishimoto, "All New Tesla Models Will Feature Level 5-Capable Autopilot Hardware," *Motor Trend* (Oct. 20, 2016), *available at* <https://www.motortrend.com/news/new-tesla-models-will-feature-level-5-capable-autopilot-hardware/>.

47. As part of the announcement, Tesla published on its official blog a post titled “All Tesla Cars Being Produced Now Have Full Self-Driving Hardware,” stating “[w]e are excited to announce that, as of today, all Tesla vehicles produced in our factory – including Model 3 – will have the hardware needed for full self-driving capability at a safety level substantially greater than that of a human driver.” In the same post, Tesla stated that “[s]elf-driving vehicles will play a crucial role in improving transportation safety and accelerating the world’s transition to a sustainable future,” and that “[f]ull autonomy will enable a Tesla to be substantially safer than a human driver.”²⁶

48. The blog post included a video made by Tesla’s Autopilot team in the weeks before the release, which purported to show a Tesla driving itself without any human intervention from the person in the driver’s seat, whose hands remain off the steering wheel throughout the video. The video begins with a note saying, “The person in the driver’s seat is only there for legal reasons. He is not doing anything. The car is driving itself.” However, multiple Tesla Autopilot employees who worked on the video would later report that the route taken by the car had been charted ahead of time by software that created a three-dimensional digital map (a feature unavailable to drivers using the commercial version of Autopilot), and that the video did not accurately show how the car operated during filming. For example, the car kept executing driving tasks poorly and engineers had to run the pre-programmed route over and over again to get video that would make it appear the car capable of driving itself. At one point during filming, the car crashed into a fence while on Autopilot and had to be repaired.²⁷ None of these facts were referenced in the video or otherwise

²⁶ The Tesla Team, “All Tesla Cars Being Produced Now Have Full Self-Driving Hardware,” <https://www.tesla.com/blog/all-tesla-cars-being-produced-now-have-full-selfdriving-hardware> (Oct. 19, 2016).

²⁷ See Metz & Boudette, *supra* note 10.

disclosed by Tesla. The deceptive and misleading video was later used to promote Autopilot's purported abilities, and indeed is still featured on the company's website despite having been debunked for years.²⁸

49. Also on October 19, 2016, the company held a conference call with reporters, during which Musk stated that all new Tesla cars would now include all the cameras, computing power, and other hardware necessary for "full self driving"—not a technical term but one that suggests truly autonomous operation. Musk further stated that Tesla would "be able to demonstrate a demonstration drive of our full autonomy all the way from LA to New York. So basically from home in LA to let's say dropping you off in Times Square, NY and then having the car parking itself by the end of next year without the need for a single touch."²⁹ Musk repeatedly represented that autonomous vehicles were safer than human-driven ones, and even warned journalists that they would be "killing people" if they wrote negative articles about self-driving technology that dissuaded people from using it.³⁰

50. According to reporting by multiple outlets, including the Wall Street Journal and The New York Times, Tesla's decision to promise the technology would be able to provide "Full Self-Driving" and Musk's statements at the news conference "took the Tesla engineering team by surprise, and some felt that Musk was promising something that was not possible." Sterling Anderson, who was the head of Tesla's Autopilot program at the time, "told Tesla's sales and marketing teams that they should not refer to the company's technology as 'autonomous' or 'self-

²⁸ See Tesla, <https://www.tesla.com/autopilot>; Tesla, "Tesla Self-Driving Demonstration," <https://www.tesla.com/videos/autopilot-self-driving-hardware-neighborhood-long> (Nov. 18, 2016).

²⁹ Xautoworld, "Transcript: Elon Musk's Autopilot 2.0 Conference Call," <https://www.xauto-world.com/tesla/transcript-elon-musk-autopilot-2-conference-call/> (Oct. 19, 2016).

³⁰ Kosoff, *supra* note 4; Andrew Batiuk, "Tesla October 19th 2016 Autopilot 2.0 Conference Call With Visuals Added," https://www.youtube.com/watch?v=-vjGEEF_p5E (Oct. 20, 2016).

driving’ because this would mislead the public.”³¹ In a meeting after the October announcement, someone asked Mr. Anderson how Tesla could brand the product “Full Self-Driving,” to which he responded, “This was Elon’s decision.” Two months later, in December 2016, Mr. Anderson resigned.³²

51. On October 20, 2016, the day after the release of Enhanced Autopilot and FSD, Musk tweeted that Tesla’s “Summon” feature was capable of autonomously driving itself to pick up its owner “even if you are on the other side of the country.”³³



D. Year After Year, Tesla Fails to Deliver on Its Promise of a Fully Self-Driving Car, Instead Providing Experimental Software that Kills and Maims Drivers

52. In March 2018, Apple engineer Walter Huang was killed when the Autopilot on his Tesla Model X became confused at a fork in the highway and caused the car to veer sharply to the left and crash into a concrete barrier in Mountain View, California.

³¹ Metz & Boudette, *supra* note 10.

³² Dugan & Spector, *supra* note 12.

³³ Elon Musk, <https://twitter.com/elonmusk/status/789022017311735808> (Oct. 20, 2016, 1:34 AM).



53. In the aftermath of that fatal crash, Tesla publicly released crash data and sought to blame Huang for the accident, violating its agreement with NTSB not to comment on crashes during the course of an investigation, and causing NTSB to remove Tesla as a party to its investigation.

54. In April 2018, a Tesla with Autopilot engaged struck and killed a pedestrian in Japan.

55. In September 2018, Musk sent a series of tweets regarding Tesla's stock price and his purported plans to take the company private that the Securities and Exchange Commission ("SEC") labeled "misleading." The SEC filed a lawsuit against Tesla and Musk, who settled two days later. Under the settlement, Tesla and Musk agreed to pay \$40 million in penalties, Tesla agreed to oversee Musk's communications, and Musk was forced to step down as Tesla's chairman (though he would remain as CEO). Musk would later send at least two tweets that violated the terms of the settlement.

56. In March 2019, Jeremy Banner was killed when his 2018 Tesla Model 3 with Autopilot engaged drove under a tractor-trailer in Florida. The Banner accident were eerily similar

to the 2016 accident that killed Joshua Brown when his car drove under a tractor-trailer, and that led Tesla to announce in September 2016 that the company was confident it had fixed the issue by increasing the software's reliance on radar. The Banner accident indicated that Tesla had not fixed this significant flaw in its ADAS technology in September 2016, and still had not done so two-and-a-half years later.

57. In April 2019, at an event in Palo Alto, California, that Tesla dubbed "Autonomy Day," Musk took to the stage and announced that Tesla vehicles would be capable of full self-driving and autonomously navigating dense urban areas like San Francisco and New York by the end of 2019, and that in two years the company would be making cars without steering wheels or pedals.³⁴ Musk also stated, "If you fast forward a year, maybe a year and three months, but next year for sure, we will have over a million robo-taxis on the road," and "I feel very confident predicting autonomous robo-taxis for Tesla next year. ... I'm confident we'll have at least regulatory approval somewhere, literally next year." Musk stated the robo-taxis would be a way for Tesla owners to make money when they aren't using their vehicles, with Tesla taking 25 or 30 percent of the revenue and allowing the company to compete with popular ride-hailing services like Uber and Lyft.³⁵ A few months later, Musk doubled-down on the robo-taxi prediction, tweeting that Tesla would "have a million robotaxis by end of 2020."³⁶ Tesla has never developed a robo-taxi and is nowhere near doing so.

³⁴ R. Baldwin, "Tesla promises 'one million robo-taxis' in 2020," <https://www.engadget.com/2019-04-22-tesla-elon-musk-self-driving-robo-taxi.html> (Apr. 22, 2019).

³⁵ Tech Insider, "Watch Elon Musk Unveil Plans For A Tesla Ride-Hailing App," <https://www.youtube.com/watch?v=YiWbdZ8ItRs> (Apr. 22, 2019); Matt McFarland, "Elon Musk says Tesla will have robo-taxis operating next year," *CNN Business*, <https://www.cnn.com/2019/04/22/tech/tesla-robotaxis> (Apr. 22, 2019).

³⁶ Elon Musk, <https://twitter.com/elonmusk/status/1148070210412265473> (July 7, 2019, 8:24 PM).

58. In May 2019, Tesla released an update to its ADAS “Navigate” feature, which is designed to automate some lane-change functions. When Consumer Reports tested the feature, it found that it cut off other cars without leaving enough space, failed to pass in the correct lane, and sometimes struggled to merge into traffic.³⁷

59. In October 2019, Consumer Reports tested Tesla’s “Smart Summon” feature, which Tesla claimed would allow owners to use a smartphone app to “summon” their Tesla vehicle to drive itself across a parking lot without any occupants inside the vehicle. Consumer Reports’ testing revealed that the feature had difficulty negotiating a parking lot, with the summoned car crossing lane lines and wandering erratically “like a drunken or distracted driver.”³⁸ This was nearly four years after Musk’s January 2016 tweet that Tesla was two years away from its customers being able to use Summon to have their car come to them even if it was thousands of miles away.³⁹

60. In December 2019, Jenna Monet was killed when the Model 3 she was in crashed into the back of a parked fire truck in Indiana while Autopilot was engaged.

61. In February 2020, the NTSB called on NHTSA to set stricter standards on Autopilot, citing the high number of Autopilot-related collisions and deaths.

62. In August 2020, a couple was killed in Saratoga, California, after their Tesla veered off a highway while Autopilot was active.

³⁷ See Keith Barry, “Tesla’s Updated Navigate on Autopilot Requires Significant Driver Intervention,” *Consumer Reports* (May 22, 2019), available at <https://www.consumerreports.org/autonomous-driving/tesla-navigate-on-autopilot-automatic-lane-change-requires-significant-driver-intervention/>

³⁸ Jeff Plungis, “Tesla’s Smart Summon Performance Doesn’t Match Marketing Hype,” *Consumer Reports* (Oct. 8, 2019), available at <https://www.consumerreports.org/automotive-technology/teslas-smart-summon-performance-doesnt-match-marketing-hype/>.

³⁹ Musk, *supra* notes 14, 33.

63. In September 2020, Consumer Reports published the first in a series of evaluations of Tesla's "Full Self-Driving Capability" technology, finding that the technology caused vehicles to engage in unusual and unsafe behavior, such as stopping at green lights, driving through stop signs, slamming on the brakes for yield signs when the merge was clear, and stopping at every exit while going around a traffic circle.⁴⁰

64. In October 2020, Tesla increased the price of an FSD package from \$8,000 to \$10,000, and informed some owners who had previously purchased an FSD package that their vehicles would require a \$1,000 hardware upgrade to be compatible with Tesla's FSD technology going forward.

65. On November 20, 2020, Tesla attorneys sent the California Department of Motor Vehicles ("DMV") a letter (later released via Public Records Act request) in response to the DMV's questions about the FSD "City Streets" feature that was about to be released to some Tesla owners in a software update. Tesla's legal counsel wrote, "For context, as we've previously discussed, City Streets continues to firmly root the vehicle in SAE Level 2 capability." The letter goes on to explain in detail FSD's limitations and to admit that the system is nowhere near being fully autonomous or fully self-driving:

City Streets' capabilities with respect to the object and event detection and response (OEDR) sub-task are limited, as there are circumstances and events to which the system is not capable of recognizing or responding. These include static objects and road debris, emergency vehicles, construction zones, large uncontrolled intersections with multiple incoming ways, occlusions, adverse weather, complicated or adversarial vehicles in the driving path, unmapped roads. As a result, the driver maintains responsibility for this part of the dynamic driving task (DDT). In addition,

⁴⁰ See Mike Monticello & Keith Barry, "Tesla's 'Full Self-Driving Capability' Falls Short of Its Name: The pricey option doesn't make the car self-driving, and now Tesla's promises are under scrutiny by state regulators in California," *Consumer Reports* (Sept. 4, 2020) (last updated May 19, 2021), available at <https://www.consumerreports.org/autonomous-driving/tesla-full-self-driving-capability-review-falls-short-of-its-name-a1224795690/>.

the driver must supervise the system, monitoring both the driving environment and the functioning of City Streets, and he is responsible for responding to inappropriate actions taken by the system. The feature is not designed such that a driver can rely on an alert to draw his attention to a situation requiring response. There are scenarios or situations where an intervention from the driver is required but the system will not alert the driver. In the case of City Streets (and all other existing FSD features), because the vehicle is not capable of performing the entire DDT, a human driver must participate⁴¹

66. On December 14, 2020, in another letter to the California DMV (released via Public Records Act request), Tesla’s legal counsel reiterated that any final release of the FSD City Streets feature to the Tesla customer fleet “will continue to be an SAE Level 2, advanced driver-assistance feature” that, like all other FSD features, “do[es] not make the vehicle autonomous” and is “intended for use only with a fully attentive driver who has his or her hands on the wheel and is prepared to take over at any moment.” Tesla’s counsel continued, “Please note that Tesla’s development of true autonomous features (SAE Levels 3+) ... will not be released to the general public until we have fully validated them and received any required regulatory permits or approvals.”⁴²

67. On December 28, 2020, in another letter to the California DMV (released via Public Records Act request), Tesla’s legal counsel again reiterated the SAE Level 2 nature and limitations of Tesla’s FSD technology:

Full Self-Driving (FSD) Capability is an additional optional suite of features that builds from Autopilot and is also representative of SAE L2. Features that comprise FSD Capability are Navigate on Autopilot, Auto Lane Change, Autopark, Summon, Smart Summon, Traffic and Stop Sign Control, and, upcoming, Autosteer on City Streets (City Streets). While we designed these features to become more capable over time through over-the-air

⁴¹ Letter from Eric Williams (Tesla) to Miguel Acosta (DMV) Re: City Streets – Pilot Release at 1 (Nov. 20, 2020), *available at* <https://www.plainsite.org/documents/242a2g/california-dmv-tesla-robotaxi-ADAS-emails/>.

⁴² Letter from Eric Williams (Tesla) to Miguel Acosta (DMV) Re: City Streets – Pilot Release at 2-3 (Dec. 14, 2020), *available at* <https://www.plainsite.org/documents/242a2g/california-dmv-tesla-robotaxi-ADAS-emails/>.

software updates, currently neither Autopilot nor FSD Capability is an autonomous system, and currently no comprising feature, whether singularly or collectively, is autonomous or makes our vehicles autonomous. This includes the limited pilot release of City Streets.⁴³

68. During the same month that Tesla's legal team was assuring California regulators that the most advanced version of its ADAS technology was still at SAE Level 2 and suggesting it was likely to remain at Level 2 for the foreseeable future, Elon Musk gave an interview to Business Insider in which he promised that Tesla would achieve Level 5 before the end of the following year, stating "I'm extremely confident that Tesla will have level five next year, extremely confident, 100%."⁴⁴

69. In January 2021, Tesla reported \$721 million in profit in 2020, its first profitable year. This was a dramatic turnaround in the company's financial condition from prior recent years. As recently as 2018, Tesla had been burning through cash, was in danger of running out of money, and at one point was approximately only one month away from having to declare bankruptcy.⁴⁵

70. In a January 2021 earnings call, Musk stated that the company had made "massive progress on Full Self-Driving," and that it "will become obvious later this year" that "Tesla

⁴³ Letter from Eric Williams (Tesla) to Miguel Acosta (DMV) Re: Autonomous Mode Disengagements for Reporting Year 2020 at 1-2 (Dec. 14, 2020), *available at* <https://www.plainsite.org/documents/242a2g/california-dmv-tesla-robotaxi-ADAS-emails/>; *see also* David Silver, "Tesla Emails To The California DMV Emphasize Continued Reliance On Maps," *Forbes* (Mar. 9, 2021), *available at* <https://www.forbes.com/sites/davidsilver/2021/03/09/tesla-emails-to-the-california-dmv-emphasize-continued-reliance-on-maps/?sh=2c0884c957e6>.

⁴⁴ Mathias Döpfner, "Elon Musk reveals Tesla's plan to be at the forefront of a self-driving-car revolution," *Business Insider*, <https://www.businessinsider.com/elon-musk-interview-axel-springer-tesla-accelerate-advent-of-sustainable-energy> (Dec. 5, 2020).

⁴⁵ *See* Chris Isidore, "Tesla just proved all its haters wrong. Here's how," *CNN Business*, <https://www.cnn.com/2020/01/31/investing/tesla-cash-crunch/index.html> (Jan. 31, 2020); Chris Isidore, "Elon Musk: Tesla was month away from bankruptcy," *CNN Business*, <https://www.cnn.com/2020/11/04/tech/elon-musk-tesla-once-got-near-bankruptcy/index.html> (Nov. 4, 2020).

Autopilot is capable of full self-driving.” Musk also stated, “I’m highly confident the car will drive itself for the reliability in excess of a human this year. This is a very big deal.” When a financial analyst asked Musk why he was confident Tesla would achieve SAE Level 5 autonomy in 2021, Musk responded, “I’m confident based on my understanding of the technical roadmap and the progress that we’re making between each beta iteration.”⁴⁶

71. Six weeks later on a March 9, 2021 phone call with California DMV regulators, Tesla’s director of Autopilot software, CJ Moore, contradicted Musk. According to an internal DMV memo memorializing the call (released via a Public Records Act request), “DMV asked CJ to address, from an engineering perspective, Elon’s messaging about L5 [Level 5] capability by the end of the year. Elon’s tweet does not match engineering reality per CJ.” (It appears that the DMV tried but failed to redact that last sentence.) In response to a question from DMV regulators about “how Tesla evaluates the potential advancement of levels of autonomy,” Tesla representatives “indicated they are still firmly in L2 [Level 2].” Tesla further told DMV that “[t]he ratio of driver interaction would need to be in the magnitude of 1 or 2 million miles per driver interaction to move into higher levels of automation [i.e., Level 3 and higher].”⁴⁷ In other words, drivers would need to intervene only once per 1 to 2 million miles before Tesla would proceed to Level 3 software. Tesla’s ADAS software, which routinely makes mistakes, is not even remotely close to this level of reliability.

⁴⁶ Tesla (TSLA) Q4 2020 Earnings Call Transcript (Jan. 27, 2021), *available at* <https://www.fool.com/earnings/call-transcripts/2021/01/27/tesla-tsla-q4-2020-earnings-call-transcript/>.

⁴⁷ Memorandum to File by Miguel Acosta (DMV) Re: Tesla AP City Streets Update (Mar. 9, 2021), *available at* <https://www.plainsite.org/documents/28jcs0/california-dmv-tesla-robotaxi-ADAS-notes/>.

72. Following up on the March 9, 2021 phone call, the California DMV wrote to Tesla: “Notwithstanding other public messaging from Tesla about developing vehicles capable of full driving automation, Tesla reiterated that the City Streets feature is currently a Society of Automotive Engineers (SAE) level two (2) Advanced Driver-Assistance feature and that Tesla will continue to monitor how participants interact with the feature and make improvements. As mentioned in your [prior] correspondence and per California regulations, should Tesla develop technology features characterized as SAE level 3 or higher, Tesla will seek the appropriate regulatory permitting from the DMV before autonomous vehicles are operated on public roads.”⁴⁸

73. In May 2021, under pressure from the Transportation Committee of the California Senate, the California Department of Motor Vehicles launched an investigation into whether Tesla is deceptively marketing its ADAS technology as making its cars capable of autonomous driving.⁴⁹

74. In June 2021, in what was widely seen as a response to motor vehicle collisions involving Tesla’s ADAS technology, NHTSA issued an unprecedented order requiring automobile manufacturers to report any crash involving an injury, fatality, or property damage that happens while or immediately after a vehicle is automating some driving tasks.

75. In early July 2021, Tesla released the FSD Beta 9 version of its FSD software to certain Tesla vehicle owners. Following the release, Tesla owners took videos of the software in action that show vehicles missing turns, scraping against bushes, and veering toward parked cars.

⁴⁸ Letter from Miguel Acosta (DMV) to Eric Williams (Tesla) (Apr. 21, 2021), *available at* <https://www.plainsite.org/documents/28jcs0/california-dmv-tesla-robotaxi-ADAS-notes/>.

⁴⁹ See Russ Mitchell, “DMV probing whether Tesla violates state regulations with self-driving claims,” *Los Angeles Times* (May 17, 2021), *available at* <https://www.latimes.com/business/story/2021-05-17/dmv-tesla-california-ADAS-autopilot-safety>.

76. On July 26, 2021, on a quarterly earnings call, Musk told investors and reporters that he was confident FSD-equipped Tesla vehicles would soon “be able to drive themselves with the safety levels substantially greater than that of the average person.”

77. In August 2021, NHTSA opened a preliminary safety defect investigation into Autopilot, and two U.S. Senators called for the Federal Trade Commission to investigate what they referred to as Tesla’s potentially deceptive marketing practices surrounding its FSD technology, including Tesla’s use of the phrase “full self-driving” to describe and market a feature that does not make the vehicle fully self-driving.

78. On August 31, 2021, NHTSA ordered Tesla to produce documents and information regarding the design of its FSD technology, crashes involving that technology, and marketing materials that make representations about that technology. On the date that was the deadline for compliance, Tesla submitted only a partial response to NHTSA, claiming that the documents and information it had requested was confidential business information.

79. On October 12, 2021, NHTSA asked Tesla about its practice of asking FSD Beta users to sign nondisclosure agreements prohibiting users from sharing negative information about their experiences using the FSD Beta software.

80. On October 24, 2021, Tesla pulled back the release of version 10.3 of its ADAS software, which the company had already made available for drivers to use on public roads, because of problems the software was having making left turns at traffic lights.

81. In October 2021, an update to the FSD Beta software caused a major increase in “phantom braking” incidents, in which the software identifies a non-existent threat that triggers the vehicle’s emergency braking system. The result is that Tesla vehicles, traveling at various speeds, were suddenly slamming on the brakes for no apparent reason. Tesla initially claimed it

had identified the source of the problem and fixed it with a software update released on October 25, 2021, but subsequently issued a formal recall over the issue for the more than 11,000 vehicles using the FSD Beta software in a reported effort to head off adverse action by U.S. regulators.⁵⁰ Tesla's claims of having fixed the problem, however, turned out to be false, as driver complaints about "phantom braking" issues soared to 107 NHTSA complaints in the three-month period of November 2021 through January 2022 (compared with only 34 such complaints in the preceding 22 months). Owner complaints to NHTSA included everything from phantom braking incidents that were "happening with NOTHING present in front of my vehicle, and sometimes with nothing around me at all," to an incident where Tesla software slammed on the brakes in response to a plastic bag.⁵¹

82. On November 18, 2021, CNN Business reported that it spent a morning testing Tesla's FSD technology on the streets of New York City and "watched the software nearly crash into a construction site, try to turn into a stopped truck and attempt to drive down the wrong side of the road." The FSD software reportedly "needed plenty of human interventions to protect us and everyone else on the road," including a driver intervention "every couple of blocks or so" and multiple instances in which the driver "quickly jerked the wheel to avoid a crash."⁵²

⁵⁰ Tom Krisher, "Tesla software recall may head off fight with US regulators," *Associated Press* (Nov. 2, 2021), available at <https://apnews.com/article/technology-business-software-d3e2107435f432fd9b36ba14898166a0>.

⁵¹ Faiz Siddiqui & Jeremy B. Merrill, "Tesla drivers report a surge in 'phantom braking,'" *The Washington Post* (Feb. 2, 2022), available at <https://www.washingtonpost.com/technology/2022/02/02/tesla-phantom-braking/>.

⁵² Matt McFarland, "We tried Tesla's 'full self-driving.' Here's what happened," *CNN Business*, <https://www.cnn.com/2021/11/18/cars/tesla-full-self-driving-brooklyn/index.html> (Nov. 18, 2021); *CNN*, "CNN tests a 'full self-driving' Tesla," <https://www.youtube.com/watch?v=2PMu7MD9GvI> (Nov. 18, 2021).

83. On December 6, 2021, The New York Times published an article about its investigation into the failures of Tesla’s ADAS technology based on interviews with 19 Tesla employees who had worked on design, developing, and testing that technology at Tesla over the prior decade. The article reported that interviews with the employees indicated that Musk “repeatedly misled buyers” about the abilities of Tesla’s ADAS technology.⁵³

84. In January 2022, Musk stated on an earnings call, “My personal guess is that we’ll achieve Full Self-Driving this year. I would be shocked if we do not achieve Full Self-Driving safer than a human this year. I would be shocked.”

85. In February 2022, the company Cruise received regulatory approval to begin offering a fully driverless robotaxi service with no backup driver behind the wheel, and received regulatory approval to begin charging customers.⁵⁴

86. On July 13, 2022, the Dawn Project, an organization dedicated to increasing the software safety, published a paper regarding its testing of a Tesla Model 3 equipped with FSD Beta 10.12.2 (released on June 1, 2022) on a closed racetrack. The purpose of the testing was to determine the FSD software’s safety in terms of its ability to detect and avoid hitting small children. The testing was performed on a closed racetrack with the Tesla driving itself between a long row of cones with a child-sized mannequin placed in plain view at the end of the row—i.e., conditions significantly less complex and more favorable to the FSD software than those that would be encountered in the real world. Nevertheless, the testing found that Tesla’s FSD software consistently failed to detect the stationary child-size mannequins and “d[id] not avoid the child or

⁵³ Metz & Boudette, *supra* note 10; Tesla, “Tesla Self-Driving Demonstration” (Nov. 18, 2016), <https://www.tesla.com/videos/autopilot-self-driving-hardware-neighborhood-long>.

⁵⁴ See Andres Picon, “Cruise gets state permit to offer paid driverless taxi rides in San Francisco,” *San Francisco Chronicle* (June 2, 2022), available at <https://www.sfchronicle.com/bayarea/article/Cruise-gets-state-permit-to-offer-paid-driverless-17216515.php>.

even slow down,” but instead “repeatedly struck the child mannequin in a manner that would be fatal to an actual child.”⁵⁵

87. On July 14, 2022, the editor-in-chief of Electrek, a website that covers electric vehicles, published an article reviewing his experience of using Tesla’s FSD Beta software over the course of two months. His ultimate conclusion was that, despite years of development and updates by Tesla, FSD Beta’s “decision-making is still the equivalent of a 14-year-old who has been learning to drive for the last week and sometimes appears to consume hard drugs.”⁵⁶

88. In August 2022, Tesla announced that the price of FSD on new Tesla cars would increase from \$12,000 to \$15,000, effective September 5, 2022.

E. The California DMV Charges Tesla with Untrue, Misleading, and Deceptive Marketing of its “Autopilot” and “Full Self-Driving” Technology

89. On July 28, 2022, following a year-long investigation, the California DMV, which licenses motor vehicle manufacturers and dealerships in California (including Tesla’s Fremont factory and dozens of Tesla retail stores), brought two related administrative enforcement actions against Tesla for “untrue,” “misleading,” and “deceptive” marketing of its Autopilot and FSD technology. The DMV specifically alleged that Tesla’s use of the product labels “Autopilot” and “Full Self- Driving Capability,” as well as statements about those technologies that have appeared on Tesla’s website in 2022, “represent that vehicles equipped with those ADAS [advanced driver assistance system] features will operate as an autonomous vehicle, but vehicles equipped with those ADAS features could not at the time of those advertisements, and cannot now, operate as

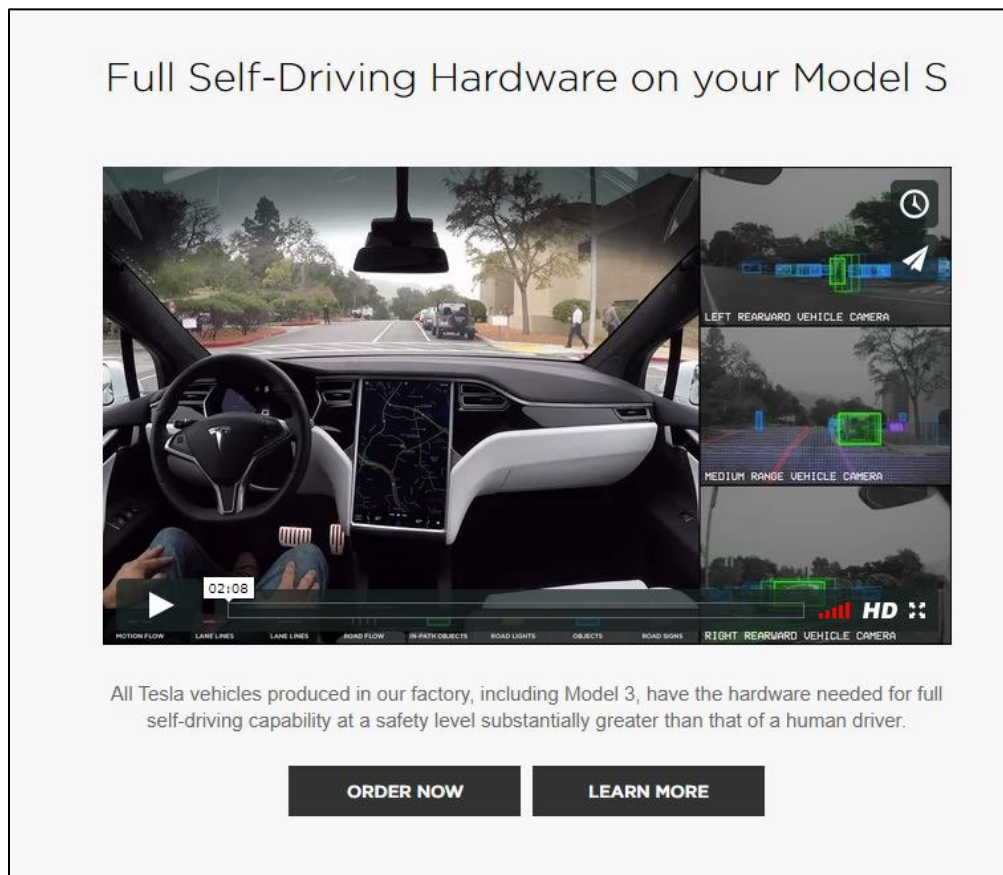
⁵⁵ The Dawn Project, *In Scientific Test, Tesla “Full Self-Driving” Technology Consistently Strikes Child-Sized Mannequins* (July 13, 2022), available at https://dawnproject.com/wp-content/uploads/2022/08/The_Dawn_Project_Tesla_ADAS_Test_8_.pdf.

⁵⁶ Fred Lambert, “Elon Musk does the impossible and manages expectations on Tesla’s next Full Self-Driving update,” *Electrek* (July 14, 2022), <https://electrek.co/2022/07/14/elon-musk-manages-expectations-tesla-next-big-full-self-driving-update/>.

autonomous vehicles.” For relief, the DMV seeks restitution and the revocation or suspension of Tesla’s California vehicle manufacturer license and vehicle dealer license.

F. Plaintiff’s Experience

90. On or about December 31, 2016, Plaintiff went to the Tesla dealership in Manhasset, New York. Plaintiff and the sales representative sat around a desk in the dealership and designed Plaintiff’s Model S on the Tesla.com website. The website included the following discussion of FSD:



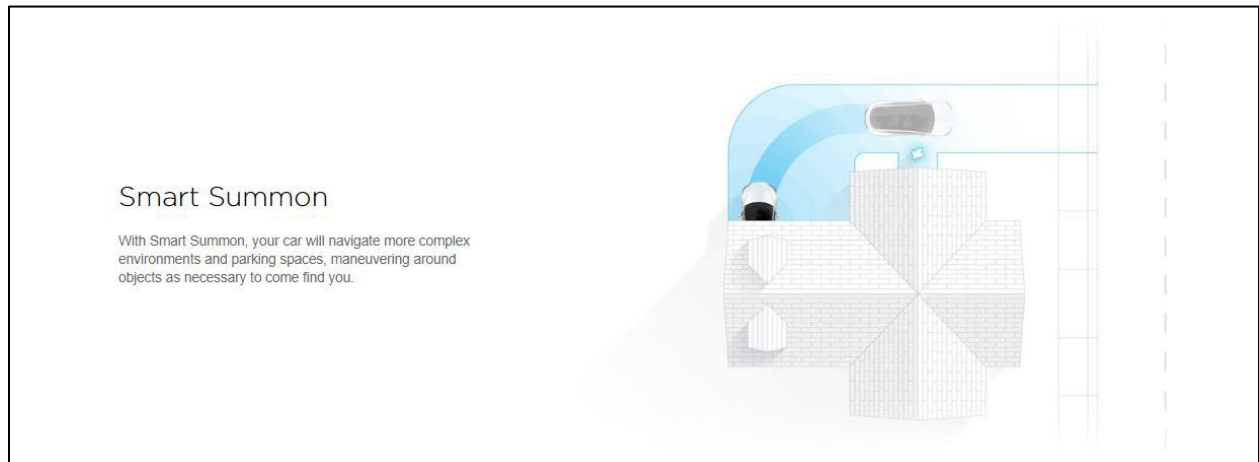
See Exhibit A.

91. The video shown is the one discussed previously in which engineers heavily manipulated the conditions and used multiple takes to give the appearance of performance was not accurate and was highly misleading.

92. Through the learn more link, Plaintiff was taken to the following page that discussed FSD further. *See* Exhibit B.

93. On the page, Tesla makes the following claims: “All Tesla vehicles produced in our factor, including Model 3, have the hardware needed for full self-driving capability at a safety level substantially greater than that of a human driver.” *Id.*

94. It went on:



95. It goes on to state:

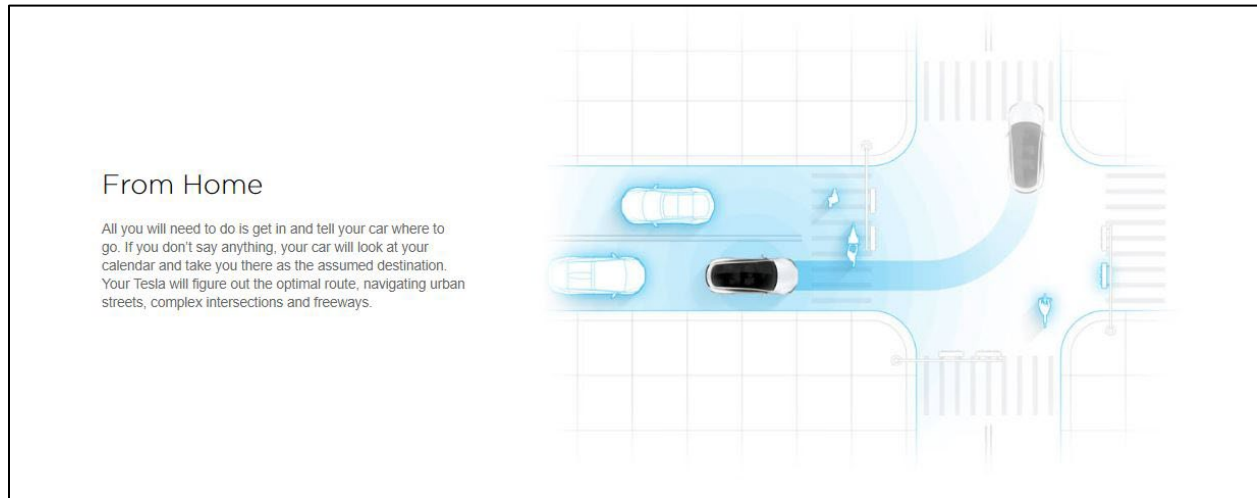
Full Self-Driving Capability

Build upon Enhanced Autopilot and order Full Self-Driving Capability on your Tesla. This doubles the number of active cameras from four to eight, enabling full self-driving in almost all circumstances, at what we believe will be a probability of safety at least twice as good as the average human driver. The system is designed to be able to conduct short and long distance trips with no action required by the person in the driver's seat. For Superchargers that have automatic charge connection enabled, you will not even need to plug in your vehicle.

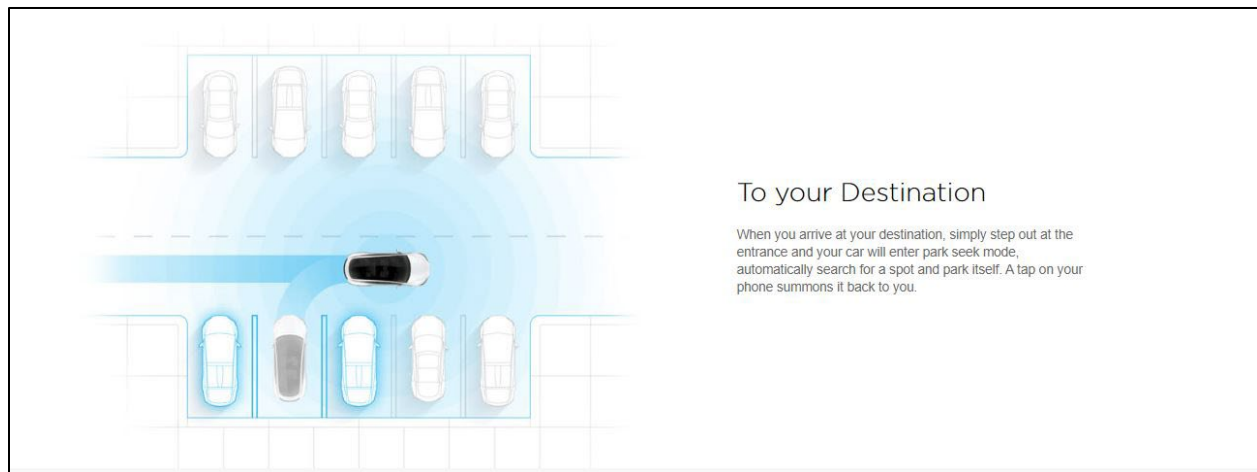
All you will need to do is get in and tell your car where to go. If you don't say anything, the car will look at your calendar and take you there as the assumed destination or just home if nothing is on the calendar. Your Tesla will figure out the optimal route, navigate urban streets (even without lane markings), manage complex intersections with traffic lights, stop signs and roundabouts, and handle densely packed freeways with cars moving at high speed. When you arrive at your destination, simply step out at the entrance and your car will enter park seek mode, automatically search for a spot and park itself. A tap on your phone summons it back to you.

Please note that Self-Driving functionality is dependent upon extensive software validation and regulatory approval, which may vary widely by jurisdiction. It is not possible to know exactly when each element of the functionality described above will be available, as this is highly dependent on local regulatory approval. Please note also that using a self-driving Tesla for car sharing and ride hailing for friends and family is fine, but doing so for revenue purposes will only be permissible on the Tesla Network, details of which will be released next year.

96. It went on:



97. It goes on:



98. Finally, it stated:

<p>Standard Safety Features</p> <p>These active safety technologies, including collision avoidance and automatic emergency braking, will become available in December 2016 and roll out through over-the-air software updates</p>	<p>Automatic Emergency Braking</p> <p>Designed to detect objects that the car may impact and applies the brakes accordingly</p>	<p>Front Collision Warning</p> <p>Helps warn of impending collisions with slower moving or stationary cars</p>
	<p>Side Collision Warning</p> <p>Warns the driver of potential collisions with obstacles alongside the car</p>	<p>Auto High Beams</p> <p>Adjusts high/low beams as required</p>

99. Plaintiff viewed these claims through the website on the sales representative's computer before agreeing to pay for the additional FSD package.

100. On information and belief, Plaintiff paid approximately \$8,000 for the FSD package, above and beyond the standard costs for the Model S.

101. Contrary to Tesla's representations, Plaintiff's Model S was not fully self-driving. By way of example, for the first several months, Plaintiff's Model S would not exceed speeds of 50 miles per hour.

102. The autopilot could only be activated in very limited and select locations. When it was available, an indicator light would turn on allowing the feature to be activated. However, if not in one of these select locations, the feature was unavailable. This limitation on location was never disclosed to Plaintiff.

103. When the autopilot was active, it requires Plaintiff to check-in with the system approximately once a minute. When the check-in is required, an indicator light will appear. If Plaintiff does not immediately check-in, a sound signal will begin as well. If Plaintiff still does not check-in, the vehicle will slowly come to a stop. The autopilot cannot be reactivated until Plaintiff exists the vehicle and comes back in. As a result, Plaintiff must continuously monitor the autopilot.

104. In at least one incident, the autopilot began navigating out of its lane and towards another car. Plaintiff was forced to jerk the wheel back to return the car to his lane.

105. The redlight detection feature often failed to detect redlights.

106. Based on Tesla's representations that the system would be improved through over-the-air software updates, Plaintiff continually awaited new updates which would allow the full self-driving capabilities that Tesla claimed the car would have. However, those updates were never forthcoming.

107. Contrary to Tesla's representations, Plaintiff's Model S is not and has never been fully self-driving.

TOLLING OF THE STATUTE OF LIMITATIONS

108. To the extent that there are any statutes of limitations applicable to Plaintiff's and Class members' claims, the running of the limitations periods have been tolled by various doctrines and rules, including but not limited to equitable tolling, the discovery rule, the fraudulent concealment rule, equitable estoppel, the repair rule, and class action tolling.

CLASS ACTION ALLEGATIONS

109. Plaintiff brings this case as a class action pursuant to Federal Rule of Civil Procedure 23(a) and 23(b)(3) on behalf of himself and a class defined as follows:

All persons who purchased the Vehicles within New York for personal, family, or household and paid for ADAS and FSD. ("Class")

110. While Plaintiff is presently unaware of the current number of sales, based on the ubiquity of the Vehicles in New York there are likely thousands of Class members. The Class is sufficiently numerous such that joinder is impracticable.

111. There are issues of law and fact common to the Class, which common issues predominate over any issues specific to individual class members. The principal common issues include: whether Defendant's conduct as alleged is consumer oriented; whether the ADAS and FSD statements are materially misleading; whether Defendant's conduct constitutes the violations of law alleged herein; whether Plaintiff and class members are entitled to the relief requested. All class members were subjected to the same unlawful conduct, as they all saw the ADAS and FSD statements and all purchased the Vehicles.

112. Plaintiff's claims are typical of the claims of class members. Plaintiff and all class members purchased the Vehicles that, for all intents and purposes, were identically labeled so as to mislead and deceive consumers. All claims are based on the same legal theories, and all arise from the same course of conduct.

113. Plaintiff will adequately and fairly protect the interests of all class members. Plaintiff is committed to a vigorous and successful prosecution of this action, is familiar with the legal and factual issues involved, and has retained counsel experienced in the litigation of false labeling and false advertising cases, including cases making claims similar to those asserted here. Neither Plaintiff nor counsel have any interest or conflict that might cause them to not vigorously pursue this action.

114. A class action is superior to other available methods for the fair and efficient adjudication of this controversy, since: (a) the prosecution of separate lawsuits by individual class members would entail the risk of inconsistent and conflicting adjudications that could establish conflicting standards of conduct for Defendant; and (b) there will be no unusual or extraordinary management difficulties in administering this case as a class action.

115. Defendant acted on grounds generally applicable to the class with respect to the matters alleged herein, thereby making the relief appropriate with respect to the class as a whole.

CAUSES OF ACTION
FIRST CAUSE OF ACTION
VIOLATION OF NEW YORK GBL § 349
(On Behalf of Plaintiff and Other Class Members)

116. Plaintiff repeats each and every allegation contained in the paragraphs above and incorporates such allegations by reference herein.

117. New York General Business Law Section 349 (“GBL § 349”) declares unlawful “[d]eceptive acts or practices in the conduct of any business, trade, or commerce or in the furnishing of any service in this state . . .”

118. The conduct of Defendant alleged herein constitutes recurring, “unlawful” deceptive acts and practices in violation of GBL § 349, and as such, Plaintiff and the other Class Members seek monetary damages.

119. Defendant misleadingly and deceptively represents the Vehicles to consumers.

120. Defendant's unlawful consumer-oriented conduct is misleading in a material way because Plaintiff and the other class members believed that the Vehicles' were autonomous when they were not.

121. Plaintiff and other Class Members paid extra money for the ADAS and FSD features.

122. Defendant made its deceptive and misleading statements and representations willfully, wantonly, and with reckless disregard for the truth.

123. Plaintiff and other Class Members have been injured inasmuch as they, having viewed the Vehicles label, paid a premium for the ADAS and FSD features which, contrary to Defendant's representation, was misleading and deceptive. Accordingly, Plaintiff and other Class Members paid more than what the Vehicles the bargained and received was worth.

124. Defendant's conduct as alleged herein constitutes a deceptive act and practice in the conduct of business in violation of New York General Business Law §349(a) and Plaintiff and other members of the Class have been damaged thereby.

125. As a result of Tesla's recurring deceptive acts and practices, Plaintiff and other Class Members are entitled to monetary and compensatory damages, restitution and disgorgement of all moneys obtained by means of Defendant's unlawful conduct, interest, and attorneys' fees and costs. This includes actual damages under GBL § 349, as well as statutory damages of \$50 per unit purchased pursuant to GBL § 349.

SECOND CAUSE OF ACTION
VIOLATION OF NEW YORK GBL § 350
(On Behalf of Plaintiff and Other Class Members)

126. Plaintiff repeats each and every allegation contained in the paragraphs above and incorporates such allegations by reference herein.

127. N.Y. Gen. Bus. Law § 350 provides, in part, as follows:

False advertising in the conduct of any business, trade or commerce or in the furnishing of any service in this state is hereby declared unlawful.

128. N.Y. Gen. Bus. Law § 350a(1) provides, in part, as follows:

The term ‘false advertising, including labeling, of a commodity, or of the kind, character, terms or conditions of any employment opportunity if such advertising is misleading in a material respect. In determining whether any advertising is misleading, there shall be taken into account (among other things) not only representations made by statement, word, design, device, sound or any combination thereof, but also the extent to which the advertising fails to reveal facts material in the light of such representations with respect to the commodity or employment to which the advertising relates under the conditions proscribed in said advertisement, or under such conditions as are customary or usual . . .

129. Defendant’s labeling contains a deceptive and materially misleading statement concerning its Vehicles inasmuch as it misrepresents its autonomous driving features.

130. Plaintiff and other Class Members have been injured inasmuch as they, having viewed Defendant’s label, paid a premium for the Vehicles. Plaintiff and other Class Members paid more than what the Vehicles they bargained for and received was worth.

131. Defendant engaged in its unlawful conduct as alleged herein willfully, wantonly, and with reckless disregard for the truth.

132. Defendant’s material misrepresentations were substantially uniform in content, presentation, and impact upon consumers at large. Moreover, all consumers purchasing the Vehicles were and continue to be exposed to Defendant’s unlawful conduct.

133. As a result of Defendant’s recurring, acts and practices in violation of GBL § 350, Plaintiff and class members are entitled to monetary and compensatory damages, restitution and disgorgement of all monies obtained by means of Defendant’s unlawful conduct, interest, and attorneys’ fees and costs, as well as statutory damages of \$500 per Vehicles purchased.

THIRD CAUSE OF ACTION
UNJUST ENRICHMENT
(On Behalf of Plaintiff and Other Class Members)

134. Plaintiff repeats each and every allegation contained in the paragraphs above and incorporates such allegations by reference herein.

135. Plaintiff pleads this claim in the alternative.

136. As a result of Tesla's deceptive, fraudulent, and misleading labeling, advertising, marketing, and sales of the Vehicles, Defendant was enriched, at the expense of Plaintiff and the other Class members through the payment of the purchase price for ADAS and/or FSD.

137. Under the circumstances, it would be against equity and good conscience to permit Tesla to retain the ill-gotten benefits that it received from Plaintiff and the other members in light of the fact that the Vehicles purchased by Plaintiff and the other Class members were not what Tesla purported them to be. Thus, it would be unjust or inequitable for Tesla to retain the benefit without restitution to Plaintiff and the other Class members for the monies paid to Tesla for such Products.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, individually and on behalf of the members of the Class request that this Honorable Court:

(i) enter an order certifying the proposed Class under Federal Rule of Civil Procedure 23(a) and (b)(3), as set forth above;

(ii) enter an order declaring that Defendant is financially responsible for notifying the Class members of the pendency of this suit;

(iii) issue judgment declaring that Defendant has committed the violations of law alleged herein;

(iv) issue judgment awarding statutory damages in the maximum amount for which the law provides;

(v) issue judgment awarding monetary damages, including but not limited to any compensatory, incidental, or consequential damages in an amount that the Court or jury will determine, in accordance with applicable law;

(vi) issue judgment providing for any and all equitable monetary relief the Court deems appropriate;

(vii) issue judgment awarding punitive or exemplary damages in accordance with proof and in an amount consistent with applicable precedent;

(viii) issue judgment awarding Plaintiff her reasonable costs and expenses of suit, including attorneys' fees;

(ix) issue judgment awarding pre- and post-judgment interest to the extent the law allows; and

(x) awarding such further relief as this Court may deem just and proper.

DEMAND FOR JURY TRIAL

Plaintiff requests jury trial on all claims so triable.

Date: October 5, 2022

Respectfully submitted,

REESE LLP

/s/ Charles D. Moore
Charles D. Moore
100 South 5th Street, Suite 1900
Minneapolis, Minnesota 55402
Telephone: 212-643-0500
Email: cmoore@reesellp.com

REESE LLP

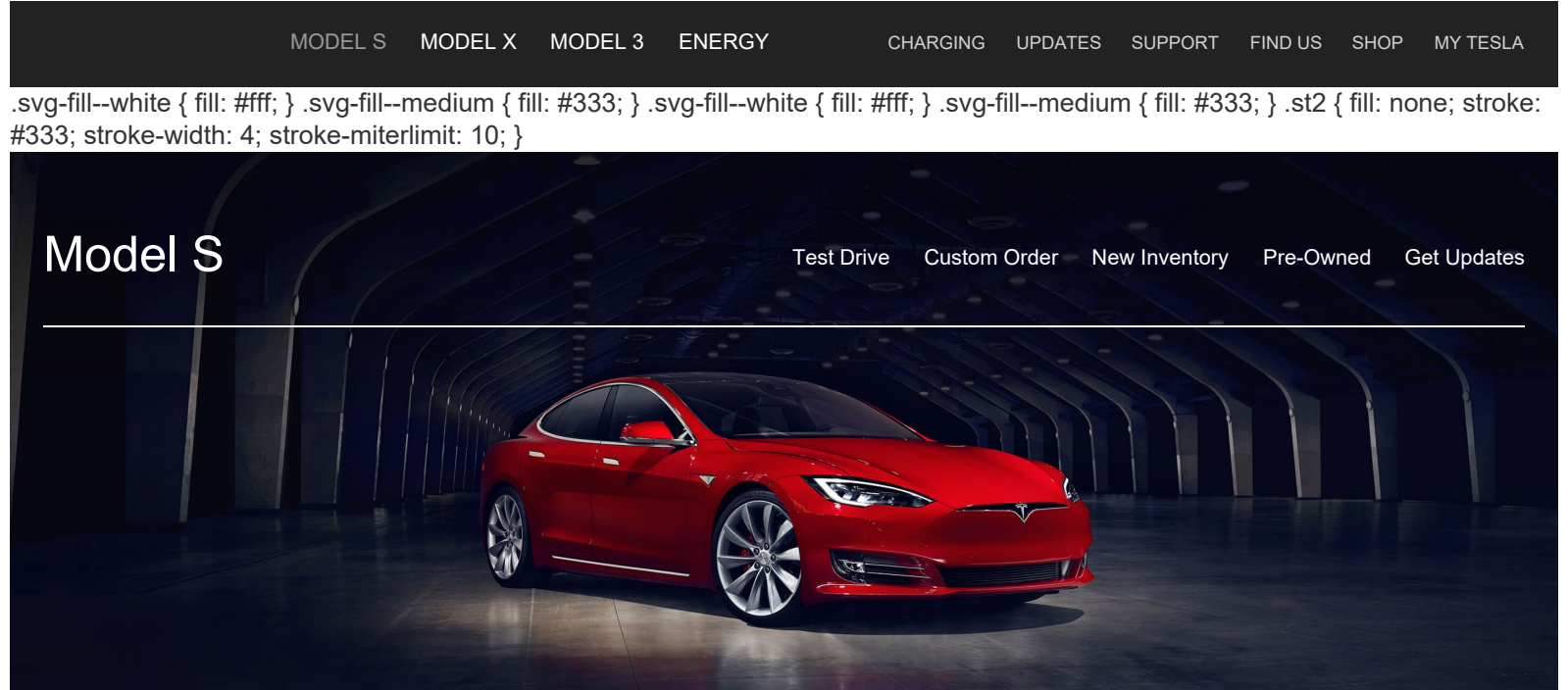
Michael R. Reese
100 West 93rd Street, 16th Floor
New York, New York 10025
Telephone: (212) 643-0500
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REESE LLP

George V. Granade (Cal. State Bar No. 316050)
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8484 Wilshire Boulevard, Suite 515
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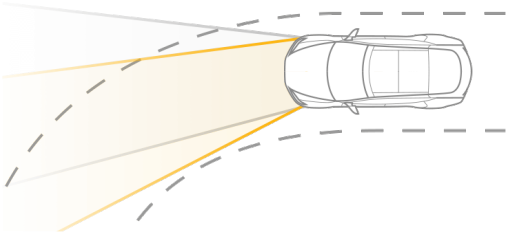
Attorneys for Plaintiff and the Proposed Class

EXHIBIT A



Performance and safety refined

Model S is designed from the ground up to be the safest, most exhilarating sedan on the road. With unparalleled performance delivered through Tesla's unique, all-electric powertrain, Model S accelerates from 0 to 60 mph in as little as 2.5 seconds. Model S comes with Autopilot capabilities designed to make your highway driving not only safer, but stress free.



MODEL S

ORDER

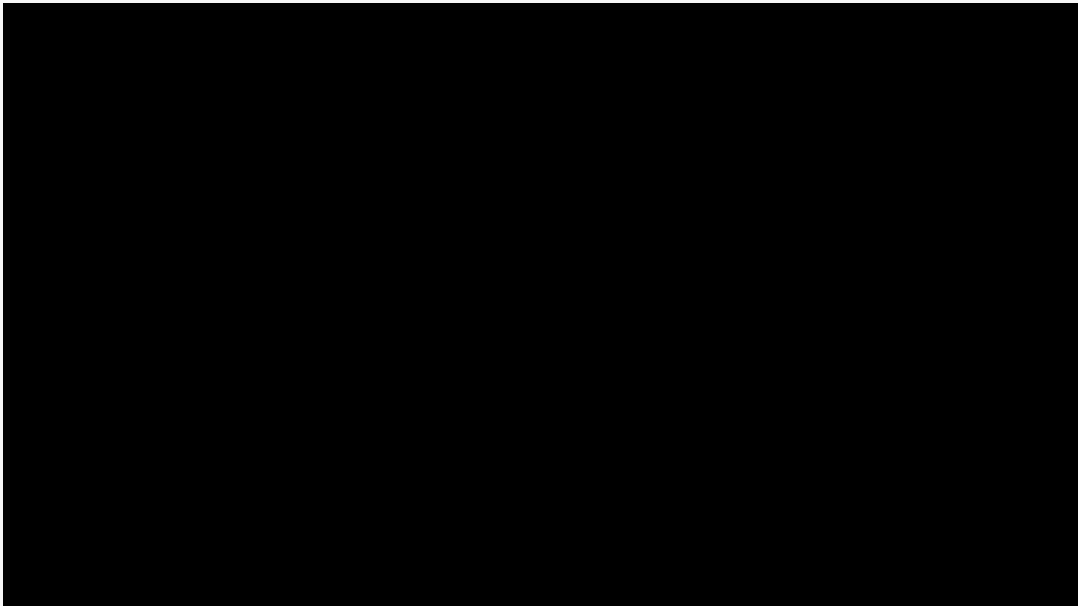
INVENTORY

TEST DRIVE

Boost safety. 14 three-position LED dynamic turning lights improve visibility at night, especially on winding roads.

particulate exhaust pollution and effectively air allergens, bacteria and other contaminants from cabin air. The bioweapon defense mode creates positive pressure inside the cabin to protect occupants.

Full Self-Driving Hardware on your Model S



All Tesla vehicles produced in our factory, including Model 3, have the hardware needed for full self-driving capability at a safety level substantially greater than that of a human driver.

ORDER NOW

LEARN MORE

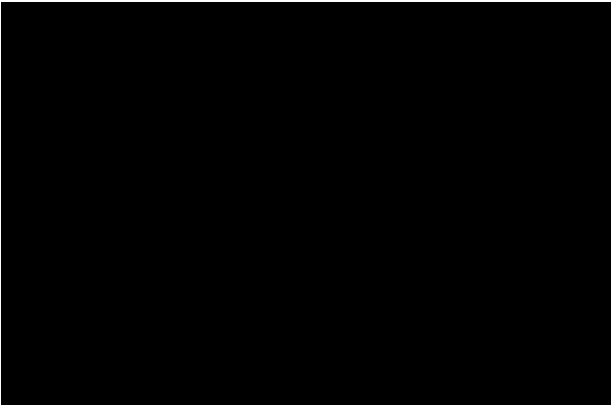
Electric All-Wheel Drive

DUAL MOTOR

SINGLE MOTOR

Dual Motor Model S is a categorical improvement on conventional all-wheel drive systems. With two motors, one in the front and one in the rear, Model S digitally and independently controls torque to the front and rear wheels. The result is unparalleled traction control in all conditions.

Conventional all-wheel drive cars employ complex mechanical linkages to distribute power from a single engine to all four wheels. This sacrifices efficiency in favor of all weather traction. In contrast, each Model S motor is lighter, smaller and more efficient than its rear wheel drive counterpart, providing both improved range and faster acceleration.



Model S Performance comes standard with All-Wheel Drive Dual Motor, pairing the high performance rear motor with a high efficiency front motor to achieve supercar acceleration, from zero to 60 miles per hour in 2.5 seconds.

Winter Challenge on snow and ice

A professional winter driving class, carried out by the Swiss Touring Club.

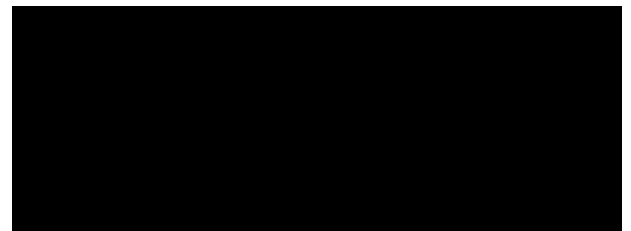
Built around the driver

Model S is a driver's car. The cabin combines meticulous noise engineering with Tesla's uniquely quiet powertrain to obtain the sound dynamics of a recording studio. The gem of the interior is the 17 inch touchscreen, which is angled toward the driver and includes both day and night modes for better visibility without distraction. It puts rich content at your fingertips and provides mobile connectivity so you can easily find your destination, favorite song or a new restaurant.



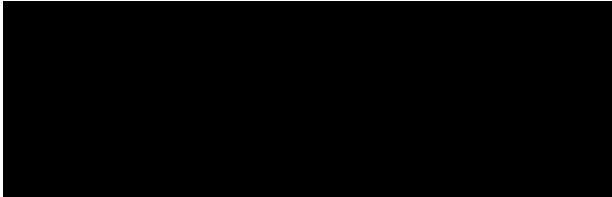
Safety

Model S is designed from the ground up to be the safest car on the road. Much of its safety is owed to the unique electric drivetrain that sits beneath the car's aluminum occupant cell in its own subframe. This unique positioning lowers the car's center of gravity, which improves handling and minimizes rollover risk, and



replaces the heavy engine block with impact absorbing boron steel rails.

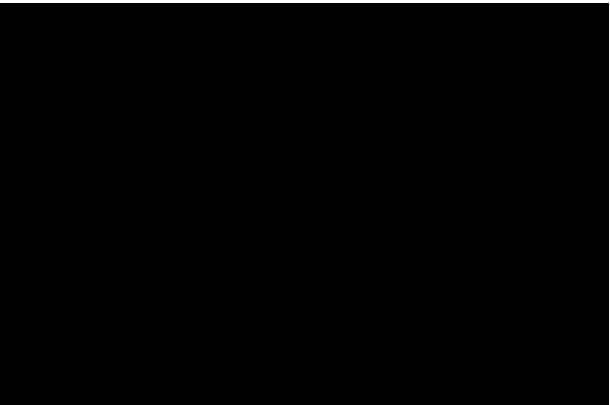
Side impacts are met by aluminum pillars reinforced with steel rails to reduce intrusion, protecting occupants and the battery pack while improving roof stiffness. In the event of an accident, eight airbags protect front and rear occupants, and the high voltage power source is automatically disconnected.



What it means to be safe
Jim survives a life changing collision thanks to his Model S.

The touchscreen

The Model S 17 inch touchscreen controls most of the car's functions. Opening the all glass panoramic roof, customizing the automatic climate control, and changing the radio station all happen with a swipe or a touch. The touchscreen, digital instrument cluster, and steering wheel controls seamlessly integrate media, navigation, communications, cabin controls and vehicle data.



A more useful driving experience
Cutting edge technology enhances Simon's driving experience.

- Media**
AM/FM/HD radio, online radio, on-demand Internet radio, Bluetooth®, and USB audio devices
- Controls**
Driving personalization, climate controls, and cabin controls
- Camera**
High definition backup camera, optimized for visibility and safety
- Calendar**
Calendar synchronization for daily schedule and tap to navigate
- Map**
Simple, intuitive Google Maps™ with real time traffic information
- Navigation**
Smart routing that adjusts for real time traffic conditions
- Energy**
Real time energy consumption and range estimation
- Phone**
Bluetooth-enabled, voice controlled handsfree phone system

Model S periodically receives over the air software updates that add new features and refresh the touchscreen look and feel.

Introducing 8.0

Software update 8.0 is the most significant over-the-air redesign of

the Tesla touchscreen since the launch of Model S in 2012. Combining a modern look with functional updates to the Media Player, Autopilot, Maps and Trip Planner for a safer, more advanced driving experience.



Range Per Charge

Speed

Outside Temperature

°

AC OFF

Wheels

19"

21"

The actual amount of range that you experience will vary based on your particular use conditions. See how particular use conditions may affect your range in our simulation model.

Vehicle range may vary depending on the vehicle configuration, battery age and condition, driving style and operating, environmental and climate conditions.

Charging Estimator

01:10

Time

\$01.61

Cost

\$4.19

Gasoline Savings

Distance Driven

40 MILES

Home and Destination

48 amp Wall Connector
240V | 48A

72 amp Wall Connector
240V | 72A

Road Trip

Supercharger
120kW

Charge time based on 90D EPA-rated consumption. Charge cost assumes national average of per kilowatt hour. Gasoline savings assumes mpg at per gallon.

Specs

Width 86.2"

With mirrors folded 77.3"

Length 196.0"

Track
Front 65.4"
Rear 66.9"

Clearance
5.3"
Air suspension
4.6" – 6.3"

Wheelbase 116.5"

Charge port

Charging

Free long distance travel using Tesla's Supercharger network

Mobile connector with 110 volt, 240 volt, and J1772 adapters

Interior

17" capacitive touchscreen

Onboard maps and navigation with free updates for 7 years

Automatic keyless entry

WiFi and Internet connectivity

Mobile app remote control

Retracting door handles

One touch power windows

High definition backup camera

GPS enabled Homelink

Hands free talking with Bluetooth

Voice activated controls

AM, FM, and Internet streaming radio

Available Ultra High Fidelity Sound package with XM radio support

Auto dimming mirrors

Power folding, heated side mirrors with memory

Two USB ports for media and power

12 volt power outlet

Twelve way power adjustable, heated front seats with memory and driver profile

Available subzero weather package with heated rear seats and wiper blade and windshield washer fluid defrosters

Front trunk (no engine!), rear trunk, and 60/40 folding rear seats with 894 liters of storage

Safety

Active safety technologies, including collision avoidance and automatic emergency braking, will become available in December 2016 and roll out through over-the-air software updates

Daytime running lights

Available Smart Air Suspension for raising and lowering ride height

Eight airbags for driver and passenger heads, knees, and pelvis plus two side curtain airbags

Electronic stability and traction control

Four wheel antilock disc brakes with electronic parking brake

Three second row LATCH attachments for child seat installations (accommodates three child seats simultaneously: two with LATCH and one with top tether and belt)

Premium Upgrades adds

Fit and finish refinements, including the use of higher quality materials and ambient lighting

HEPA air filtration system

Three-position dynamic LED turning lights

LED fog lights

Power liftgate

Lighted door handles

Interior accent lighting

EXHIBIT B

MODEL S

MODEL X

MODEL 3

ENERGY

CHARGING

UPDATES

SUPPORT

FIND US

SHOP

MY TESLA



Full Self-Driving Hardware on All Cars

All Tesla vehicles produced in our factory, including Model 3, have the hardware needed for full self-driving capability at a safety level substantially greater than that of a human driver.

ORDER MODEL S

ORDER MODEL X

Autopilot

SIGN UP

ORDER

02:08 |



Advanced Sensor Coverage

Autopilot

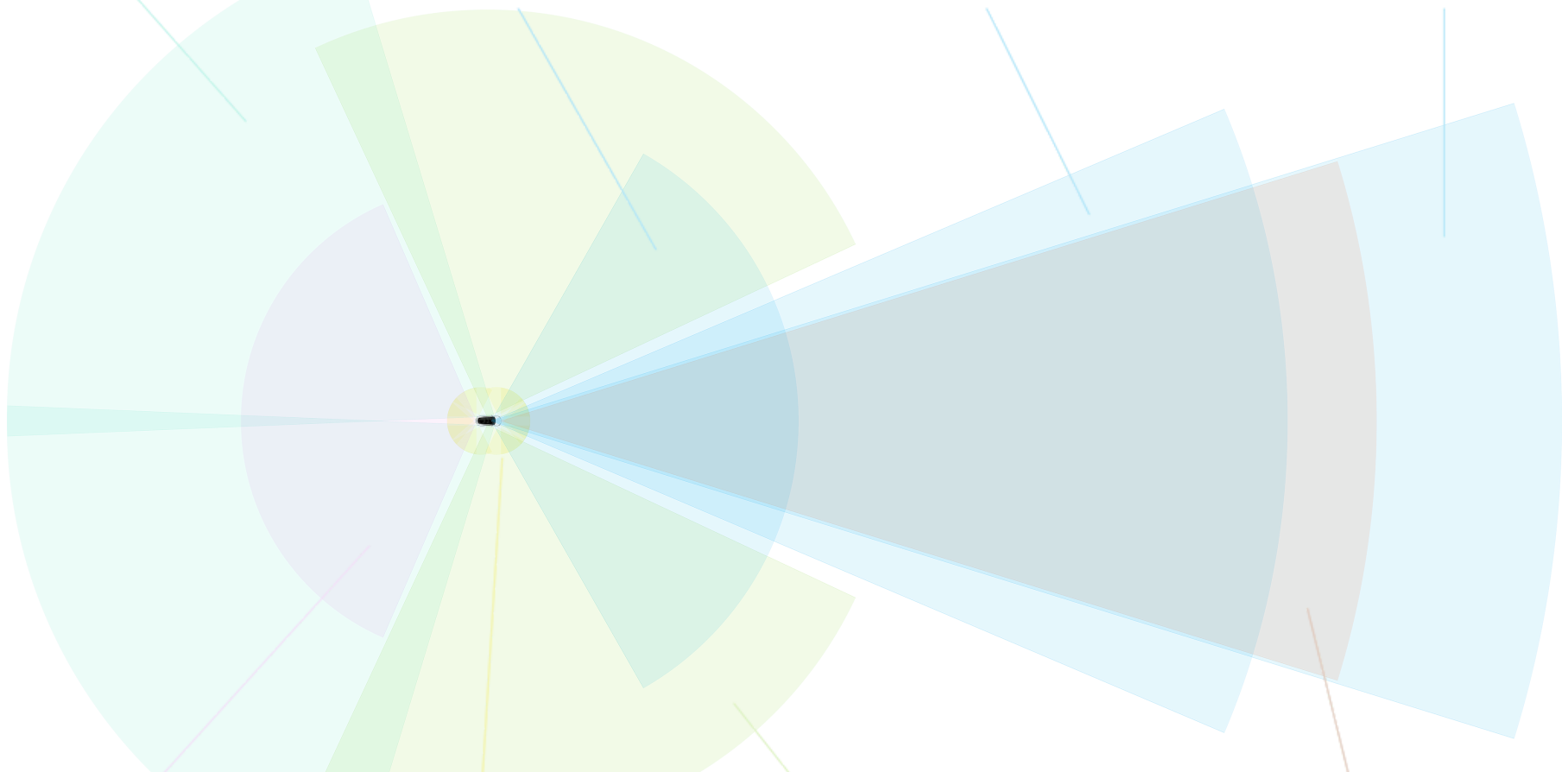
example@email.com

SIGN UP

ORDER

objects at nearly twice the distance of the prior system. A forward-facing radar with enhanced processing provides additional data about the world on a redundant wavelength that is able to see through heavy rain, fog, dust and even the car ahead.

Rearward Looking Side Cameras Max distance 100m
Wide Forward Camera Max distance 60m
Main Forward Camera Max distance 150m
Narrow Forward Camera Max distance 250m



Autopilot

example@email.com

SIGN UP

ORDER

Rear View Camera

Max distance 50m

Ultrasonics

Max distance 8m

Forward Looking Side Cameras

Max distance 80m

Radar

Max distance 160m

[Learn more about Camera Views, Radar and Ultrasonics](#)

Processing Power Increased 40x

To make sense of all of this data, a new onboard computer with over 40 times the computing power of the previous generation runs the new Tesla-developed neural net for vision, sonar and radar processing software. Together, this system provides a view of the world that a driver alone cannot access, seeing in every direction simultaneously, and on wavelengths that go far beyond the human senses.

Autopilot

SIGN UP

ORDER



Tesla Vision

To make use of a camera suite this powerful, the new hardware introduces an entirely new and powerful set of vision processing tools developed by Tesla. Built on a deep neural network, Tesla Vision deconstructs the car's environment at greater levels of reliability than those achievable with classical vision processing techniques.

Enhanced Autopilot

Enhanced Autopilot adds these new capabilities to the Tesla Autopilot driving experience. Your Tesla will match speed to traffic conditions, keep within a lane, automatically change lanes without requiring driver input, transition from one freeway to another, exit the freeway when your destination is near, self-park when near a parking spot and be summoned to and from your garage.

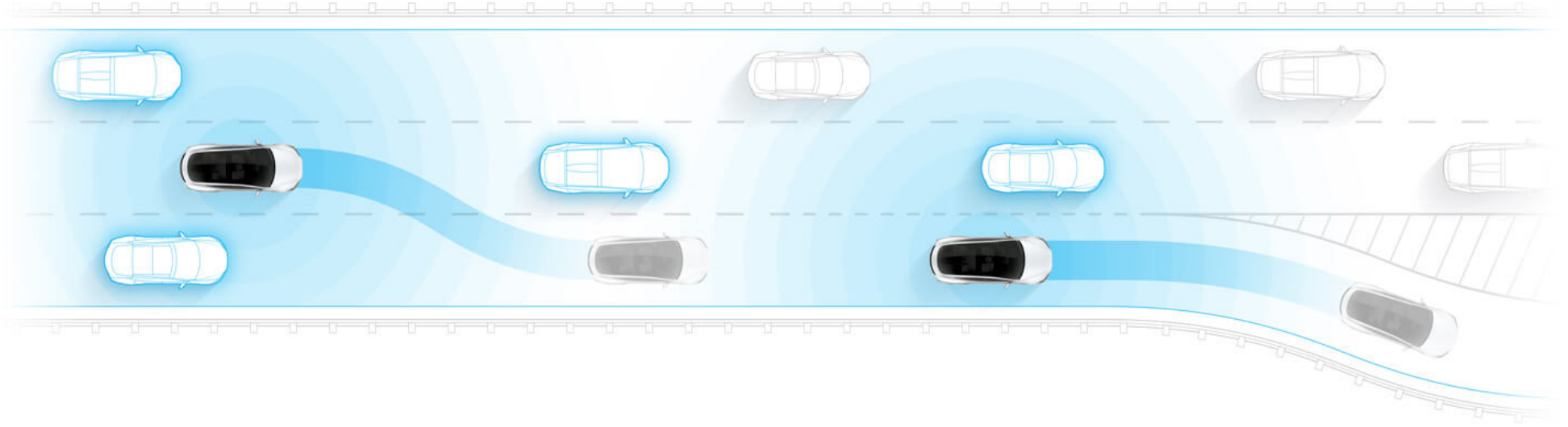
Tesla's Enhanced Autopilot software is expected to complete validation and be rolled out to your car via an

Autopilot

example@email.com

SIGN UP

ORDER



On-ramp to Off-ramp

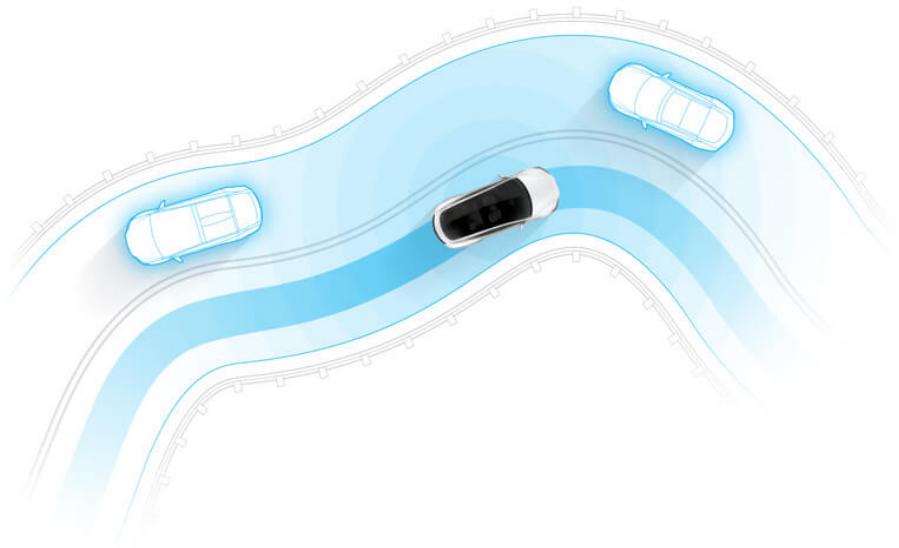
Once on the freeway, your Tesla will determine which lane you need to be in and when. In addition to ensuring you reach your intended exit, Autopilot will watch for opportunities to move to a faster lane when you're caught behind slower traffic. When you reach your exit, your Tesla will depart the freeway, slow down and transition control back to you.

Autopilot

example@email.com

SIGN UP

ORDER

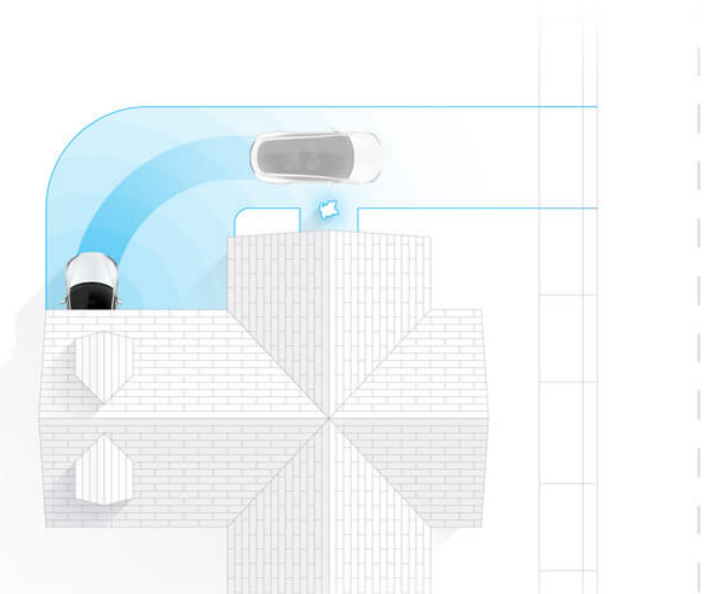


Autosteer+

With the new Tesla Vision cameras, sensors and computing power, your Tesla will navigate tighter, more complex roads.

Smart Summon

With Smart Summon, your car will navigate more complex environments and parking spaces, maneuvering around objects as necessary to come find you.



Autopilot

example@email.com

SIGN UP

ORDER

Full Self-Driving Capability

Build upon Enhanced Autopilot and order Full Self-Driving Capability on your Tesla. This doubles the number of active cameras from four to eight, enabling full self-driving in almost all circumstances, at what we believe will be a probability of safety at least twice as good as the average human driver. The system is designed to be able to conduct short and long distance trips with no action required by the person in the driver's seat. For Superchargers that have automatic charge connection enabled, you will not even need to plug in your vehicle.

All you will need to do is get in and tell your car where to go. If you don't say anything, the car will look at your calendar and take you there as the assumed destination or just home if nothing is on the calendar. Your Tesla will figure out the optimal route, navigate urban streets (even without lane markings), manage complex intersections with traffic lights, stop signs and roundabouts, and handle densely packed freeways with cars moving at high speed. When you arrive at your destination, simply step out at the entrance and your car will enter park seek mode, automatically search for a spot and park itself. A tap on your phone summons it back to you.

Please note that Self-Driving functionality is dependent upon extensive software validation and regulatory approval, which may vary widely by jurisdiction. It is not possible to know exactly when each element of the functionality described above will be available, as this is highly dependent on local regulatory approval. Please note also that using a self-driving Tesla for car sharing and ride hailing for friends and family is fine, but doing so for revenue purposes will only be permissible on the Tesla Network, details of which will be released next year.

Autopilot

example@email.com

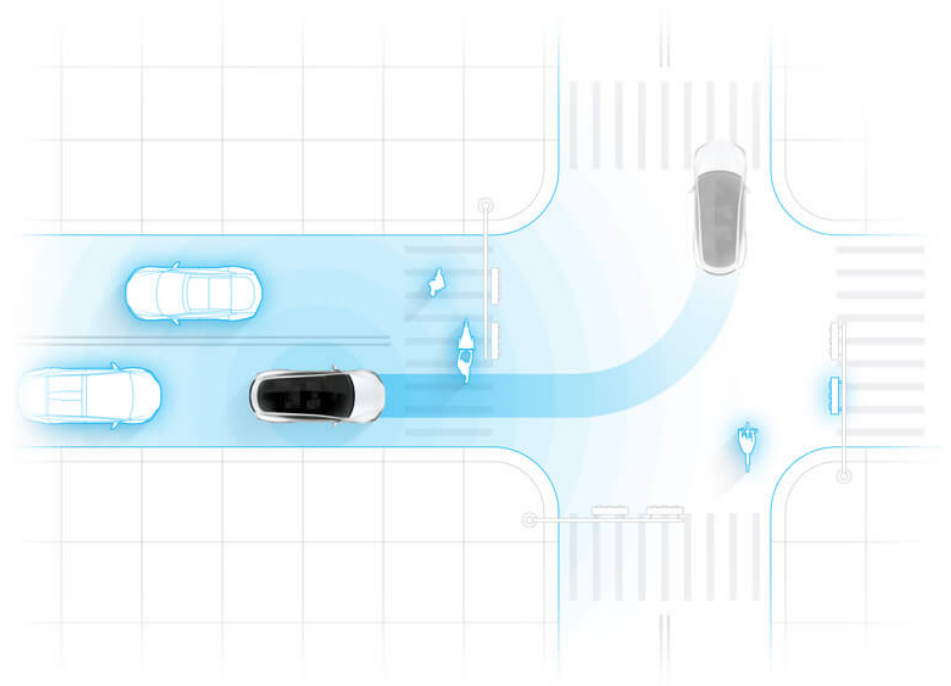
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From Home

All you will need to do is get in and tell your car where to go. If you don't say anything, your car will look at your calendar and take you there as the assumed destination.

Your Tesla will figure out the optimal route, navigating urban streets, complex intersections and freeways.



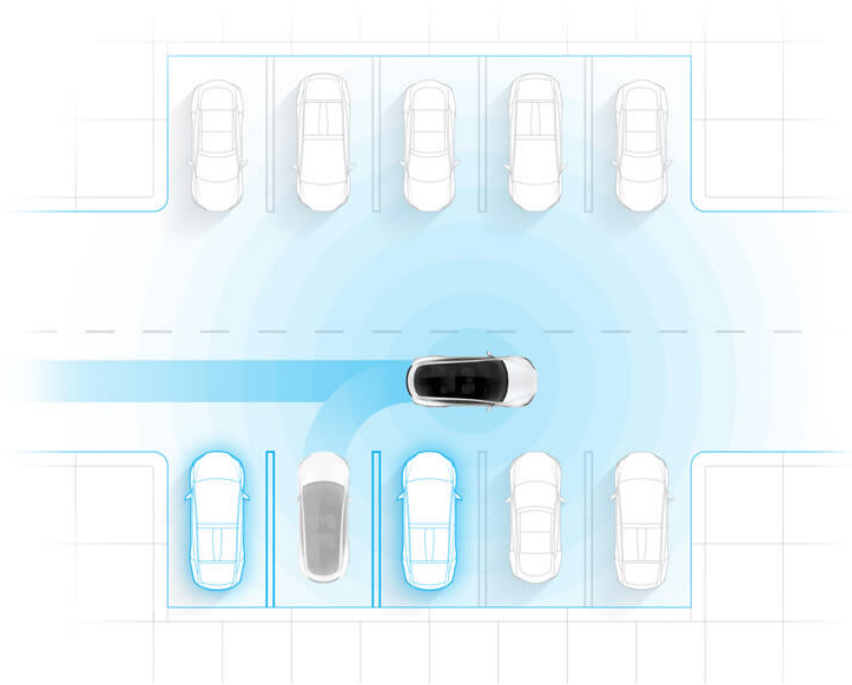
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When you arrive at your destination, simply step out at the entrance and your car will enter park seek mode, automatically search for a spot and park itself. A tap on your phone summons it back to you.



Standard Safety Features

These active safety technologies, including collision avoidance and automatic emergency braking, will become available in December 2016 and roll out through over-the-air software updates

Automatic Emergency Braking

Designed to detect objects that the car may impact and applies the brakes accordingly

Side Collision Warning

Warns the driver of potential collisions with obstacles alongside the car

Front Collision Warning

Helps warn of impending collisions with slower moving or stationary cars

Auto High Beams

Adjusts high/low beams as required

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
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